

U A U C U



Student Research Exchange Collected Papers 2017

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University of Aruba

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MEMORANDUM OF UNDERSTANDING
BETWEEN
UNIVERSITEIT VAN ARUBA (U.A.) ORANJESTAD, ARUBA
AND
UNIVERSITY COLLEGE UTRECHT (UCU), UTRECHT UNIVERSITY, THE
NETHERLANDS

AGREEMENT

THIS AGREEMENT is made, and entered into as of the 26th of February 2013 by and between
UNIVERSITY COLLEGE UTRECHT, hereinafter designated as UCU, and UNIVERSITEIT
VAN ARUBA, hereinafter designated as U.A.

In view of their similar dedication to excellence in teaching, research and cultural exchange,
University College Utrecht and Universiteit van Aruba hereby agree to this Memorandum of
Understanding with the objective of promoting academic, research and cultural exchange
exchange among their students. To achieve this end:

ARTICLE I

1. Each academic year during the term of this Memorandum of Understanding, up to 2
full year students enrolled at Universiteit van Aruba may participate in a research
degree basis. Students from UCU participating in the study abroad program at U.A. will
Academic year will be counted as one (1) FTE. The enrollment of students from UCU
the terms of the Agreement may be for one semester, or for the full academic year.
beginning with the fall term, of each institution's academic year. UCU will accept
select a consistent number of students from semester to semester and will cooperate
achieve the agreed upon exchange ratio, averaging over a three-year period.

2. Six to eight UCU students and six to eight U.A. students, and faculty members of both
institutions, participate annually in a joint undergraduate research program. The exact
research phase takes place at the University of Aruba. Details about this joint
undergraduate research program are included in an appendix to this MoU.

3. Participating students will be nominated by their home institutions and will cooperate
following criteria: (a) academic excellence as reflected in their academic records.

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University of Aruba

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university college utrecht



Universiteit Utrecht

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Collected Papers 2017

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Introduction to the third edition of the UAUCU Student Research Exchange Collected Papers

This volume presents academic papers and personal reflections written by the twelve participants of the UAUCU student research exchange project 2017. The texts in this volume reflect a wide diversity of academic disciplines and approaches, as well as the wide diversity in cultural background of this year's participant cohort. The program, which offers students from the University of Aruba (UA), University College Utrecht (UCU) and University Utrecht (UU) the opportunity to conduct research in a multidisciplinary international student team, has already proven to be a successful formula: work presented in the 2015 and 2016 volumes led to international publications, and several program alumni received thesis awards. We anticipate similar achievements for contributors to the 2017 edition.

The academic works included here treat culture, language, psychology, policy, law, environmental sciences and sustainability. The scope of the research ranges from pilot projects, to theoretical explorations verified with respondent data, to in depth sociocultural and psychological studies that explore fundamental issues confronting society. The diverse papers show a common interest in sustainable societies, reflecting a strong sense of community awareness, and providing research findings that are meaningful for Aruban society. The papers further demonstrate how the student researchers' collaboration in a multidisciplinary team has influenced their approach to their topics. The papers here are products of peer-to-peer learning: the program participants provided each other with feedback on content, method, style, language and structure. In general, the papers appear here as they were submitted by the student-researchers -- including the odd spelling mistake, grammatical error, raw opinion or hasty generalization.

Some of the student-researchers are still working on the interpretation and presentation of their findings, and will later finalize project papers, or bachelor or master theses, based on results of fieldwork presented.

Our 2017 multidisciplinary team is also remarkably multicultural: it includes students with personal connections not only to Aruba, but to Belgium, Colombia, Curaçao, Holland, Ireland, Israel, Italy, Myanmar, Russia, Rwanda, South Korea, Thailand, the United States and Venezuela. The cultural and ethnic diversity of the group has contributed to an extraordinarily rich social environment for this year's participants. All of them have written individual pieces reflecting on their personal experiences. These reflective texts show how strong the collaboration and mutual support within this diverse group has been. The texts reveal much about the core of this project: it is not only about doing meaningful research as a student; it is also about the realization that we can achieve more in the world when we approach problems from several perspectives at the same time, and when we work together by building on each other's complementary strengths. Here, too, the whole is greater than the sum of its parts.

This third year of the project has involved many people crucial to its success – it is impossible to name them all. But to all who have been part of this project as (guest) lecturer, supervisor, manager, initiator, facilitator, student, interviewee, respondent, guide, coach or mentor: thank you very much for your contribution to this greater whole.

Eric Mijts & Jocelyn Ballantyne
Project coordinators UAUCU

In memoriam: Rosemary Orr



Rosemary Orr

The UAUCU collaboration community suffered a sad loss this past year with the death of Dr. Rosemary Orr, one of the program's architects. As honors director at University College Utrecht (UCU), Rosemary was charged with identifying the possibilities for exchange with University of Aruba, and was the lead member of the original site visit team from Utrecht in January 2014. She arrived in Aruba curious about the potential for undergraduate research on language offered by its multilingual society. Once there, however, she discovered broader potential for meaningful research offered by the multidimensional nature of the challenges facing Aruba and other small island developing states. Rosemary was quick to see parallels with the challenges faced by her native island Ireland in the 20th century after it gained its independence from Britain, and that perspective gave her the vision to understand what the project could offer not only to students from Utrecht but also to students in Aruba. Rosemary's characteristic passion and energy were crucial to getting the pilot program off the ground quickly. She was an enthusiastic advocate and supporter for the program at UCU and within Utrecht University more broadly. Rosemary remained a valued advisor even when other obligations, and in the end, her health, limited her direct involvement.

Rosemary Orr strongly believed that the best education encourages students to take responsibility for engaging actively not only with the content of their studies, but also with the world at large. In this respect, as well as others too numerous to mention, the UAUCU collaboration is infused with her spirit. This volume is dedicated to her memory.

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Maja Vasić - UU

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attitudinal, situational and motivational aspects

Fardau Bamberger - UU

The role of English in Aruba's linguistic landscape

Health and Care Development

Felishah Ponson - UA

The emotional impact on people with disabilities striving to be independent in Aruba

Dahariana Evertsz - UA

A situational Analysis of the relevant welfare services and social security programs
for the older population of Aruba: implications for policy

Nurianne Dhalía Arias - UA

Diabetes Management in a Changing Society

International Relations and Diplomacy

Ghislaine Nicolaas - UA

Economic Diplomacy in Sub-National Island Jurisdiction

**Previous UAUCU Student Research Exchange
Collected Papers 2016:**

Labor and Productivity

Giancarla Lobbrecht - UA

Absenteeism in the Public Sector

Gianira Maduro - UA

Satisfaction of the 'Bezoldigingsregeling Ambtenaren'

Organizational Transitions and Sustainability

Mirjam Snitjer - UU

"The Sexiness of Sustainability"

Perspectives Towards Sustainability of Aruban Citizens

Anniek van Wezel - UU

The utility and waste management sector in the 2020 vision of Aruba

Lizanne Takke - UU

Aruba's sustainable transition: leadership used in an organizational transition towards sustainability from a management perspective

Jochem Pennekamp - UA

Does the Model Fit the Format?

A Re-contextualization of the Triple Helix Model(s) in a Small Island Setting

Previous UAUCU Undergraduate Student Research Exchange Collected Papers 2015:

Florianne Sollie - UCU

Language and Education in a Multilingual Society:

Text comprehension and language attitudes among Aruban high school students.

Sil Boedi Scholte - UCU

Who Plays What Role to Take the Stage?

The Governance of Staging Authenticity and Commodification of Cultural Heritage in Aruba.

Kimberly van Loon - UA

Perceptions of internal communication, as told by employees within the health care sector.

Geneida Geerman - UA

Internal communication of sustainable development within hotel sector.

Sharon Meijer - UA

Sustainable practices of Aruban SMEs and their influence on the economy.

**Previous UAUCU Undergraduate Student Research Exchange
Collected Papers 2015:**

Petra Zaal - UCU

Reduction of energy consumption at Aruban hotels.

Francis Malca - UA

Legal perspectives on Solid waste management in Aruba.

Rikkert Loosveld - UCU

Does the Parkietenbos landfill have boundaries?

A waste and ph-gradient assessment of Parkietenbos.

Tobia de Scisciolo - UCU

The Assessment of Aruba's Shoreline Pollution:

A Comparison between the South and the North coast.

Giovanni Jacobs - UA

Mapping Aruba's policy on beach care.



Louisa Elizabeth Maxwell, University College Utrecht

Months of prior preparation lead to these few fleeting weeks on beautiful Aruba. I naturally had some expectations and indeed pre-conceived ideas of what this experience would be. But almost as soon as I set foot out of the airport, these were quickly dispelled and what was to come was something entirely humbling and (pardon the cliché) incredible. I was humbled by the vast amount of knowledge, generosity and openness of the individuals I was fortunate to conduct my research with and their willingness to help a complete stranger such as myself. These conversations alone have taught me more about anthropology, music, history and life than is possible to capture in a mere few words. An infinite thank you to Beach, Gregory, Indra, Zetsia, Sonny, Mighty Cisco and Mighty Reds for taking the time to sit down and impart your wealth of Calypso knowledge with me. Without you, none of this would have been possible. These encounters fostered countless special moments sitting and discussing life and all its contradictions. I will always recall

fondly the day Beach invited me on a visit to his mentor Mo, on the other side of the island.

Stepping into Mo's home (a living installation of his works) was like entering another realm, in which Mo obligingly showed me around: every corner, every newspaper cutting stuck on the wall, had a story. I sat on a colourfully painted and jewelled stool (which too was an art piece) and listened to Mo and Beach converse about everything and nothing, graciously allowing me to be part of their world for a few hours. That moment in my mind is frozen, timeless; their infectious laughs and grins are my symbol of the "one happy island" mantra.

Simply being on the island was incredible, finishing off a long day of studying with a dip in the Caribbean Sea or devouring baskets of fish sitting on the deck at Zeerover gave me a glimpse into the uniqueness of living on Aruba. Countless snorkelling expeditions, rocky windsurfing lessons, evening runs along Malmok and giant Venezuelan avocados are some of the great experiences I have had here. I hope my research does justice to the island, Calypso and Arubans, and offers an insight into Aruban culture to those outside, as well as inside. The end goal of my research was to give back to Aruba, and add to the existing knowledge on the fascinating topic of Calypso. I hope this paper lives up to that aim. Meeting local students through the UAUCU programme added an extra dimension to the overall experience, to whom I am deeply grateful for sharing this with.

Lastly, I would like to thank Eric and Jocelyn for running the UAUCU program and their endless patience and guidance that made the Aruba vision a reality.

Calypso and Cultural Commodification in Aruba

by Louisa Maxwell

A. Introduction

The Dutch Caribbean island of Aruba draws in hundreds of thousands of tourists annually with its beautiful white sandy beaches, crystal clear turquoise water and friendly locals. This vacation experience is neatly packaged in the “One Happy Island” mantra and sold to predominantly American tourists who seek that “away from it all” feeling. Tourism on the island grew exponentially since the mid twentieth century, and is now the main driver of the Aruban economy accounting for 70% of the GDP (Travel & Tourism 2015). Mass tourism has placed Aruba (like other holiday destinations) in the liminal position of striking the fine balance between economic imperatives, and the conservation of its tangible and intangible cultural heritage. Creating a harmonious equilibrium between both is becoming an increasingly salient issue as the tourism industry has become more competitive due to air travel becoming more affordable, with flight possibilities to endless destinations. The island must set itself apart from other Caribbean islands in order to keep the flow of tourists coming. Aruba and tourism find themselves in a Catch 22 scenario: the island relies on tourism to be economically viable but tourism is increasingly dependent on the preservation of culture on the island. It is a widespread global market practice to package a culture, including the

intangible¹, to offer tourists the “authenticity” they desire.

This paper looks at the topic of cultural commodification through the lens of Calypso music (intangible culture) on the island of Aruba. The aim is to explore if there is a relationship between Calypso and cultural commodification from the point of view of Aruban cultural producers. If this is a reality, what are the projections for the future of Calypso on the island and what steps must be taken to protect and preserve the art form?

A.1.1 History of Calypso

This section will provide a brief history of Calypso music in order to contextualise the research. The Caribbean has a rich and complex history, one which is reflected in Calypso. Many contemporary cultural features throughout the Caribbean islands are a result of the dark history of slavery.

Calypso has its roots in Western African “songs of derision” (Van Dam 1954; 54) which were sung by

¹ “Traditions or living expressions inherited from (...) ancestors and passed on to (...) descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts” (UNESCO)

local troubadours or “Griots” (Tang 2012; 79). The Oxford English dictionary defines derision as “ contemptuous ridicule or mockery”. The songs were at times so powerful that the intended victim would financially bribe the local troubadour to not sing them. Griots (Tang 2012; 79) were central figures in West Africa for over seven centuries acting as oral historians, praise singers, specialised musicians², genealogists and storytellers. The first records of Griots, also known as “hereditary artisans of the spoken word” (Tang 2012; 79) date back to 1352-53. Ibn Battuta, a northern African traveller, wrote down his encounter with the griots of the king of Mali’s court. Griots purpose was to transmit the genealogy and history of their patrons , typically kings and nobility, through the medium of “music and verbal art” (Tang 2012; 79). Due to their ability to both critique and praise, griots have traditionally held a socially ambiguous position, being both feared and revered.

Slaves brought Songs of Derision along the Middle Passage from West Africa to the Caribbean. It is important to mention that each Caribbean island did in fact have an indigenous population which was largely decimated by the arrival of the colonial powers prior to the importation of slaves. Slave masters forced their chattel to work in fields planting and cultivating sugar cane and other commodities desired by Western consumers. These plantations were the arenas for the performance of Songs of Derision. Through their songs, slaves cast “satirical aspersions upon their owners” (Van Dam 1954; 53) and gave warnings to each other in their tribal dialect mixed with their master’s language. This mixture resulted in the development of many of the patois languages of the British West Indies, the French Creole in Haiti, the Papiementu of Curacao and Talkie Takie of Suriname. This process of creolization resulted in the development of Calypso, a distinctly Caribbean form of Songs of Derision. New Orleans Blues for instance is also thought to originate from “songs of derision,” but

² Griots specialised in instruments such as the Kora (21 string lute shaped harp) used extensively across Western Africa

developed into its current form due to the availability of brass instruments not present in the Caribbean. Although, Blues and contemporary Calypso sound vastly different, they share the characteristic of having a double meaning only understood by the initiated individual. Just as Calypso developed from “songs of derision” (Van Dam 1954; 54) sung in the fields, the blues were often based on the “hollers” (Van Dam 1954; 54) of field slaves and were satirical in nature. An initiated individual would have thus been a slave working in the fields, someone part of the subculture which was constructed in reaction to the slave-master paradigm.

Under colonial rule, the slaves were stripped of their history, ancestry, and culture. The central aim was to deprive them of all that made them human so as to quell any chance of rebellion and create an entirely submissive free workforce. All forms of African music, language and religion were banned. However, as it did not (at that time) include any instruments and thus didn’t break any rule, Calypso was a tool of resistance against the slave masters. It was a means of personal expression and freedom; a way to free the mind from the enslaved body. Individuals who performed Calypso gave themselves a stage name usually involving an important title of nobility such as King, Queen, Lady or titles of empowerment such as Mighty. By doing so, the Calypsonians gained notoriety, importance, and respect from their community. Through Calypso, they were reborn as a person of status, the very essence which the slave masters had tried to strip.

The island of Trinidad is said to be the birthplace of contemporary Calypso music. When the first slaves arrived on the island, it was part of the Spanish Empire. The British Empire annexed the island in 1797, ten years before the British Parliament abolished slavery. During this interim period, many French planters came to the island escaping Haiti, which banned all whites upon gaining independence in 1803. The use of African drums and native languages were banned on the island, resulting in the development of

Calypso in French Creole as a means to satirise the French masters. Across the Caribbean, and indeed in the United States, slave communities used cunning methods to evade the cruel iron fist of their masters.

In the British Virgin Islands secret meetings would take place in the hills. A dance circle would form around a woman called “queen” whom would air the gossip and scandals of the community. This form of Calypso became known as “Bamboula” and spread worldwide after slavery was abolished. In New Orleans, for instance, each Sunday the slave community gathered and played the Congo Square. Having a day off was an exceptional case, Louisiana being the only state that granted this and also the only state which allowed slaves to play music. There is a school of thought which believes jazz evolved from the Congo Square; as such it was where jazz was conceived not born.

As mentioned previously, each island population developed its own form of Calypso characterized by different tempos and beats used to accompany the spoken words. For instance, in Trinidad the main rhythm is *paseo*, a medium fast rumba³. This is due to the inevitable influence of South American music, Trinidad being in very close proximity to the mainland. In Jamaica, they use *mento* which has a faster tempo than Trinidad’s *paseo*. In Puerto Rican Calypso, the artists follow *plenas* and *seis demicas*, both of which being heavily influenced by Andalusian Flamencos. This is a consequence of the island’s protracted colonial attachment to Spain. The different rhythms and particular style of delivery make Calypso on each island unique. The main characteristics of Calypso are the use of archaic and synthetic words, the compressing of many syllables into short sentences, the paramount importance of rhyming but also the free conception of rhyming. Trinidadian Calypsonian Gorilla demonstrates this clearly in his own Calypso (see appendix 1.A)

During the Second World War, Calypso music was introduced into mainstream popular music with the song “Rum and Cola” by Rupert W Grant, professionally known as “Lord Invader”. The local Trinidadian Calypsonian wrote a song about the war time period on the island when US troops were stationed there to protect the British colony from Nazi invasion. The soft drink was mixed with the locally distilled rum and became a popular drink for soldiers and locals alike. Just like the “songs of derision” the Calypso song “rum and cola” had a double meaning. It alluded to the popular mix drink of rum and Coca Cola but also was a guiding metaphor of the two sugar based liquids (one North American and one Caribbean) swirling together in one drink just like the American soldiers mixed with the young women of the island. A relate of this story is given in the first verse. (See appendix 2.A)

“Rum and Cola” met such success that America’s favourite female singing band of that epoch, the Andrew Sisters, made a recording of the song. The musical genre grew in popularity and the prominent jazz singer Ella Fitzgerald sung a famous Calypso called “stone cold dead in the market”. To this day, Calypsonians hold an important place in Caribbean island societies wherein annual competitions are held during the carnival season with a king and queen being elected based on their performances. This title yields considerable power in terms of future musical prospects such as recording opportunities, television and radio ads and modelling contracts.

Each island has its own unique style due to local customs and the musical influences of the different ethnicities present. Although there is a common thread running through Caribbean music due to constant interactions and interchange of ideas between the islands, the United States also have a large influence on Calypso through radio, Internet, records, television. Music is undoubtedly dynamic and highly influential and Calypso is no exception. The following section A.1.2 will provide the historical background of Calypso on Aruba.

³ Music with Spanish and African influences originating from Cuba

A.1.2 Calypso and Aruba

The history of Aruba and Calypso began in the 19th century, far later than other Caribbean islands due to certain crucial historical factors. The island was originally inhabited by pre-ceramic Indians from approximately 2500 BC until 8500 BC, whereupon Caquetio Indians from north western Venezuela arrived. In 1499, the Spanish discovered Aruba, Bonaire, and Curacao, labelling them “Islas Inutiles” (useless islands) due to the lack of precious metals. The Spanish deported many of the islands inhabitants to work in the mines on Hispaniola. The island was then primarily used for cattle breeding and wood cutting. In 1636, the Dutch West Indian Company (VOC) took hold of the island. Sugar cane could not be grown on the island due to poor soil, which meant that no large plantation work force was required. For this reason, slavery on Aruba was less prominent than many other islands. Slavery did not exceed over 21% of the population (Alofs 2008; 12), explaining why there is less Afro-Caribbean culture on Aruba than on other islands such as Haiti where slavery accounted for 87% of the population (Blackburn 2006; 645). In 1792, the West Indian Company dissolved and the island rapidly colonised with the Aruban elite gaining control and privatising land. According to Heinze & Alofs (1997) the elite operated mainly in commercial agriculture and trading with South America with the peasants surviving off of small-scale fishing and agriculture. Less than a hundred years later in 1863, slavery was abolished and 492 slaves were freed (Alofs 2008; 12). The island’s economy was never a plantation economy, and so in lieu developed a peasant culture. Colonists, Indians and individuals of African descent mingled, giving rise to the Mestizo Creole population. Under this interracial mixing and coupled with immigration, the population grew from 1,723 to 9,023 (Alofs 2008; 12) between 1816-1923 (Alofs 2008; 12).

In 1920, the Lago oil refinery opened in the bay of San Nicolas, the far southern tip of the island. Standard Oil

of New Jersey had a vast holding of oil under Lake Maracaibo in nearby Venezuela and needed a bay which large shipping containers could enter to bring in the crude oil. Standard Oil decided on Aruba as another oil company, Shell, was already on Curacao and Venezuela was too politically unstable and prone to malaria. The oil refinery marked the beginning of industrialisation. The refinery caused a social rift within the traditional society and transformed the previously lenient racial hierarchy, as civil servants from the Netherlands, Surinam, managers from the United States and a large West Indian Caribbean workforce arrived on the island. This vast influx of immigration resulted in Aruba developing into a pluri-cultural society of over forty nationalities (Alofs 2008; 12).

Along with this mass West Indian immigration came Calypso. It is important to mention that the island was itself divided between “uptown” (San Nicolas) and “downtown” (Oranjestad); the former inhabitants were predominantly West Indian English speaking people and the latter almost entirely Dutch and Papiamentu speakers. The reason for this spatial division was the location of the refinery in San Nicolas, with the workers housed closeby. As such Calypso developed first in San Nicolas in “the village”, the name given to the area where the workers resided. The Dutch and American refinery managers lived in “the colony,” an all-white compound. The divide between the social spheres was manifested physically by a brick wall surrounding the compound, indicating the limit between the colony and the rest of San Nicolas, including “the village” (see appendix 3.A)

Traditionally, Carnival across the Caribbean region has always been associated with Calypso however this was not the case in Aruba. Prior to the arrival of West Indian migrants, the elite had celebrated carnival in Oranjestad in a Dutch fashion. However, this changed with the arrival of the West Indian migrants. Although initially a subculture heavily associated with San Nicolas,

Calypso over time became accepted into Aruban popular consciousness as part of the island identity, and was incorporated into carnival. The original style of Calypso remained, and continued to be sung in English in line with the tradition.

Carnival and Calypso grew in popularity leading to the 1954 establishment of the SAC (*Stichting Arubaanse Carnaval*) with the mandate of organising the numerous festivities and events.

Owing to the multi-cultural and multi-lingual society present in Aruba, Calypso developed in its own unique style. Along with a unique rhythm (drums from Tumba music⁴) Aruban Calypsos are now sung in multiple languages: Dutch, Papiamentu and English. The unique multi-lingual aspect of Aruban Calypso is a manifestation of the pluri-lingual society of the island. Calypso is a mirror upon which society can reflect but also upon which society is reflected. Calypso, just like its musical siblings blues, jazz and reggae, defies the dominant narrative and hegemonic culture subtly so as to avoid large repercussions by the critiqued culture and packages in such a way to avoid large repercussions. Calypso in particular is the poor man's newspaper, the Calypsonian acting as a critical theorist who analyses the news in such a way as to make it accessible to all.

During the twentieth century, Aruba was working toward separating itself from the Kingdom of the Netherlands, which it had been part of since 1636 along with Curacao, Bonaire and the windward islands of Saba, Sint Eustatius. In 1954, the Netherland Antilles were granted autonomy within the Dutch Kingdom. However after the 1960 rebellion on Curacao, Aruba pressed for a separate status (*status aparte*⁵). In this way, in 1985 Aruba became an autonomous part of the Kingdom of the Netherlands. This decision was strengthened by the cultural and racial

differences between Aruba and the other islands. Calypso ties into these cultural differences. It is an expressive music form which conveys both personal and communal identity displaying pride, nationalism and solidarity stemming from oppression and collective enslavement. The period following the achievement of status aparte was marked by postcolonial identity search, which in turn accelerated the desire for cultural autonomy and brought about an interest in the historical, social, and cultural heritage of the island. In the midst of this political transition, the island suffered a large setback when Exxon closed the Lago Refinery. This led to a surge in unemployment all over the island, but particularly in San Nicolas. The island's economic focus suddenly shifted from oil to tourism, which had slowly been growing since the 1950's and became the main pillar of the economy after 1985.

Many Calypsonians spoke of the devastating impact of the refinery's closure in their songs. Indeed, the refinery was and, perhaps still is, perceived as a vital source of employment and economic stability. Calypsonian Lord Boxoe captures this sentiment in his calypso (see appendix 4.A) "God Bless Lago".

Tourism's demand on the hospitality sector brought another wave of immigration from the Americas, Caribbean, Netherlands and Phillipines. The growth of tourism allowed the island to recover economically from the Lago setback. Although the political and demographic ties with the former metropole are still strong, Aruba has been searching for an insular identity for the past century and continues to do so (Alofs 2008; 20). This identity is crucial for the island to market itself as a unique holiday destination in the Caribbean region, but also to define for themselves what it is to be Aruban and what that entails on a local and global level. Tourism has brought on a cultural renaissance in many Caribbean islands, including Aruba, stimulating the preservation of cultural heritage. Although less attractive than the white sandy tropical

4 Music genre originally from Africa but native to Aruba and Curacao

5 Aruba is an autonomous state within the Kingdom of the Netherlands

beaches, Aruban culture now too draws tourists from all over the world. The process isn't straight forward and can be complex as intangible cultural heritage is often carved into the imagination and popular consciousness of people, rather than statically recorded in a book sat on a shelf at the public library.

A.1.3. Concept of Cultural Commodification

In order to address the concept of "cultural commodification", the following section will explain both notions of the phrase separately, followed by an elaboration of the overall concept. The first notion is culture, defined as "*that complex whole which includes knowledge, beliefs, arts, morals, laws, customs, and any other capabilities and habits acquired by [a human] as a member of society*" (UNESCO, *n.d.*). All human beings pertain to a culture, or multiple cultures, as such culture is a central part of human life. It is an unalienable part of being human as it is the basis for the construction of personal identity.

The second notion is commodification, which is explained as "the intensive sequestering of that production into the realm of commensurable exchange values" (Helgasson and Palsson 1997; 455). The process of commodification occurs when an object/cultural aspect is taken and turned into a commodity by placing a monetary value upon it. Thus, this commodity is brought into the sphere of commerce and exchange values and sold for the ascribed price. It is important to note, that anything which exists in the world, both tangible and intangible, can be swept up into this process and be transformed into a commodity. Human beings are not exempt from this process. There are countless examples of this in the music industry. The famous Reggae artist Bob Marley is a clear example of how a person, and their talent, can become a commodity: a marketable name and brand. The music industry appropriates (i.e. spot and approach) a singer, signs them to a label, markets their music, look, and lifestyle by charging

incredibly large sums of money for the artist to perform, appear in ads and wear certain clothing brands. The music industry places the artist into the realm of exchange values, where the artists receive money for their performance. Bob Marley is no longer simply the name of an artist, but the brand name of a Jamaican coffee bean and rolling papers. Through the commodification of the being of Bob Marley, the Rastafari culture and the colours associated with it have become a global symbol of marijuana and resistance to Western imperialism. The commodification of Bob Marley and the Rastafari community has highly simplified and misrepresented a complex social movement.

Commodification and commercialisation are often confused and used interchangeably. This confusion stems from the fact that both involve the marketing of a specific entity such as culture, music, or identity. Commercialisation is the build-up of commercial relationships surrounding the production of an activity or an object. Commodification is the placing of monetary value on an object, person or culture, thus transforming it into a commodity. The following section (A.2.1) will provide an in-depth explanation and analysis of the theory of cultural commodification according to Comaroff, supported by Bourdieu's explanation of the process of commodification.

A.2. Background Theory

A.2.1. Cultural Commodification

Comaroff (2009; 26) states "to be human is to have culture." Human beings belong to one or more cultures either by ascribing it to themselves or having them ascribed onto them by externalities, such as their birthplace. Comaroff furthers this statement and expounds that cultural identity, or ethnicity, is thus an inalienable natural essence. An "ethnic consciousness" (Comaroff 2009; 26) is brought about from this strong sense of selfhood wherein individuals share a common ancestry and history. This

cultural identity is articulated through “expressive culture” (Comaroff 2009; 26) such as dancing, music, singing, and clothing. The oldest relics found in archeological sites across the world or drawing on cave walls, attest to the fact that cultures have always participated in “expressive culture” (Comaroff 2009; 26) and continue to do so today. The commodification of this “expressive culture” in the New World began with the European colonization during the sixteenth century. This commodification concerned both the material and immaterial aspects of these exotic “Other” (Bourdieu 1995; 28) cultures.

While the decolonisation of the New World began with the Haitian Revolution at the end of the eighteenth century, most of the Caribbean would remain colonised until after the Second World War. The decolonisation process precipitated the First People’s righteous demand for self-determination and reclamation of their culture. The shift in colonial power dynamics brought about a new form of travel from the metropole, moving from travel associated with duty to travel associated with leisure. Popular media in the metropole drove the West’s fascination with these newly independent countries. Alongside the traditional tourism of all-inclusive luxury hotel holiday packages, an “ethnicity industry” (Comaroff 2009; 39) formed which mass markets cultures, languages, and rituals. Comaroff argues that this “ethno commerce” (Comaroff 2009; 39), has brought about opportunities for minority populations to “enhance their autonomy, political presence and material circumstances” (Comaroff 2006; 28). Western culture continues to steer this process based on its conception of the exotic “Other,” (Bourdieu 1995; 28) notably emphasizing those cultural features which are the “objectification of the already constituted taste of the producer” (Bourdieu 1993a; 231). In other words, the cultural features selected and packaged to the tourists are a result of the “habitus” (Bourdieu 1995; 28) of the consuming culture. For Bourdieu (1984), the consumption of culture is “predisposed, consciously and deliberately or not, to fulfil a social function of legitimating

social differences”(5). As such, the visiting culture dictates what it wishes to experiences, and in turn the “Other” (host culture) packages it and sells it to the visitor. By doing so, Bourdieu expounds, that a visible social difference is marked between the *visiting* culture with the financial means for leisure travel and the *host* culture, which can only offer what tourists want to experience.

Comaroff posits that this corporate interest is a medium through which these minority groups can in fact exhibit their culture, and by this process of international recognition may even cause cultural agents to find their “true self” (Comaroff 2006; 28). Comaroff puts forward a solid argument, but one which would only be a reality in a monitored environment wherein the cultural agents are actually part of the decision-making circle so as to ensure that the corporate interests would also be beneficial to the minority group. In an increasingly neoliberal world ruled by transnational corporations, these cases are few and isolated. In this vein, whilst interest can provide minority groups the socio-political platform to exhibit their culture it can also be fatal to the auratic value of the culture and thus the cultural agents themselves. Often this can result in features of a culture being appropriated, generally for economic gain. However, according to Comaroff cultural identity cannot be appropriated as “identity is part of the human essence, therefore it defies commodification” (Comaroff 2006; 29). As such, an intangible entity such as cultural identity, and individual identity, cannot be commodified because it is an intrinsic aspect to being human. This reasoning fails to acknowledge the tangible aspects of a culture which arise from cultural identity such as music and clothing; both of which can be appropriated, and sold.

That is not to say that all international exposure and corporate interest is corrosive to culture and cultural agents, but the salient issue is the involvement of the agents in the process. The level of participation of the cultural producers will dictate the overall outcome. The outcome

can be imagined as a spectrum: one extreme being fatally commodified and commercialised and the other being successful integration into the world tourism market whilst retaining authenticity for both the culture and cultural agents.

A.2.2. Popular Culture Theory

Popular culture theory is an extensively studied and debated discipline worldwide. Despite this, there is not yet a singular accepted definition of popular culture. Some argue that defining popular culture would be stripping the subject of its rich complexity and that any definition would be haunted by the absence of the “other” whose culture is being defined. Popular culture, as currently understood, only emerged after the industrialisation-induced urbanisation. This is due to three factors; firstly the employer- employee relationship changed from mutual dependency to one based entirely on the demands of the “cash nexus” (Carlyle quoted in Morris 1979; 22 as cited in Storey 2006; 13). The second factor is the residential separation between the economic classes. Thirdly, the related fear of the French Revolution spreading, resulting in the government pushing radicalism underground in order to avoid the middle class being influenced by their ideas.

Industrialisation and urbanisation redrew the cultural map, and created a new cultural space. The people living in these cultural spaces were outside of the “paternalist consideration” (Storey 2006; 13) and out of the sphere of influence of the dominant class. Both these factors allowed for the birth of a new culture, separate to the already existing dominant culture. This was the first instance of this phenomenon occurring, previously only one culture – the dominant one - had existed. This is what Benjamin Disraeli called the “birth of two nations” (Storey 2006; 13). Whereupon the dominant culture imposes itself upon the new culture it is culture itself, and not culture as a symptom or sign of something else, that becomes for

the first time the actual focus of concern. This leads to the question of defining popular culture. Hall (2009) claims it is a site where “collective social understandings are created”, a terrain on which “the politics of signification” are played out in attempts to win people to particular ways of seeing the world (122–23). As such, popular culture is a contested lieu for political constructions of “the people”⁶ and their relation to the “power bloc”.

The definition becomes more complicated with Williams’ (1983) four proposed meanings of the concept: “well liked by many people”; “inferior kinds of work”; “work deliberately setting out to win favour with the people”; “culture actually made by the people for themselves” (237).

While Hall’s definition approaches the concept from a political angle, Williams suggests that popular culture is what is left over after what constitutes high culture has been decided. It encompasses all that has failed to meet the set standards to qualify as high culture. This definition alludes to it being a mass-produced and commercial inferior culture in stark contrast to high culture, which is the refined result of a singular act of creation. In following with this reasoning, only the latter therefore, deserves a moral and aesthetic response.

Similarly to Hall, Gramsci perceives popular culture to be a site of hegemonic⁷ struggle between the “resistance” of subordinate groups and the forces of “incorporation” operating in the interests of dominant groups. Gramsci calls this “equilibrium of compromise” (1971; 161, as cited in Storey, 2006) wherein popular culture

6 “The people” does not refer to a single group in society but a variety of social groups (which differ in class position, struggles they face) which economically, politically and culturally constitute a powerful group which can be united against the “power bloc” (Storey 2006;13)

7 Gramsci (2009) uses the term ‘hegemony’ to refer to the way in which dominant groups in society, through a process of ‘intellectual and moral leadership’ (75), seek to win the consent of subordinate groups in society.

is a terrain marked by the interchange of incorporation and resistance. This process is dynamic; a culture will be viewed as popular but will then be incorporated into the dominant culture and thus changed into another “type” of non-resistant culture. Indeed, the classification of popular or high culture is not permanent and is in fact prone to change. William Shakespeare was considered a popular culture producer in his time, but is presently regarded as belonging to high culture. So too was Charles Dickens once a people’s writer, but now his works are commonly accepted as classics of high culture. Both Shakespeare and Dickens used their contemporary mass culture as the repertoire for their works, and turned it into popular culture. If one looks at popular culture holistically through the lens of Gramsci’s hegemony theory, it then becomes a terrain of ideological struggle⁸ between dominant and subordinate classes.

The notion of authenticity in culture is another point of contention in popular culture theory. There is a common belief that culture which originates from “the people” is “authentic” (Storey 2006; 8). In line with this notion, popular culture is thus positioned under the same banner as folk culture, “a culture of the people for the people” (Storey 2006; 8). However, according to Fiske (1989a) “in capitalist societies there is no so-called authentic folk culture against which to measure the “inauthenticity” of mass culture, so bemoaning the loss of the authentic is a fruitless exercise in romantic nostalgia’ (27). This perception of authenticity is often “equated with a highly romanticised concept of working-class culture construed as the major source of symbolic protest within contemporary capitalism “ (Bennett, 1980: 27 as quoted in Storey 2006; 9). This notion of culture by the people for the people raises the question of who is “the people” and, which individuals truly qualify to be part of it. In addition, what constitutes authenticity and its existential meaning remains unaddressed.

⁸ Ideology and culture occupy the same terrain but the former includes politics

Ideologies such as capitalism, communism or any other “ism” attempt to make universal and legitimate what is in fact partial and particular by taking that which is cultural and labeling it as natural. For instance, a white middle class male is “normal”⁹ according to Western capitalist hegemony and everything else is a deviation and “abnormal”. Other examples of this are terms given, such as *female* pop singer, a *black* journalist, a *working-class* writer: the first term is used to signal that the second is a deviation from the ‘universal’ categories of pop singer, journalist and writer. Culture is no exception to this. Any culture that deviates from the dominant discourse- whose central aim is to “reproduce the social conditions and social relations necessary for the economic conditions and economic relations” in order to maintain that ideology - will be labelled as resistant until it has been sanitised by the dominant ideology and essentially commodified into such a culture which “fits” into the ideological paradigm desired by the dominant culture. In this vein, popular culture can be considered an ideological machine that effortlessly reproduces the dominant structures of power through the calculated steering of the hegemonic discourse. Although this may be a reality, Richard Maltby¹⁰ posits a strong argument for the the creative value of popular culture, “if it is the crime of popular culture that it has taken our dreams and packaged them and sold them back to us, it is also the achievement of popular culture that it has brought us more and more varied dreams than we could otherwise ever have known” (Maltby as quoted in Storey 2006; 9). Indeed, the subcultures absorbed into the mainstream dominant culture have contributed invaluable to the former, however it has been at the cost of their very essence and people.

A.2.3. Reflexive Ethnography

According to interpretive anthropologists, the field of anthropology is not so much an experimental science as

⁹ A white upper class male would be a desired deviation from the middle class alternative

¹⁰ Popular culture theorist and author of *Dreams for Sale: popular culture in the twentieth century* (1994)

“an interpretive one in search of meaning” (Geertz 1975b: 5 as cited in Watson 1987; 29). During the 1980’s, the postmodern movement introduced a new paradigm in which the researcher is “continuously and inescapably engaged in interpretation (...) not only acknowledged but celebrated.” Thus, the researcher will not be afflicted by “errors of observation... because he himself is the instrument of observation” (Kaplan 1984:34 as cited by Michrina 2000; 213) and moreover, the researcher has the capacity of introspection and ability to reflect on experience (Holy 1984:33). From this reflexive turn, reflexive ethnography was born.

Reflexive ethnography is not simply engaging in self-reflection but a central property discourse, the “ways in which the products of research are affected by the personnel and process of doing research” (Michrina 2000; 212). This includes oneself into the meta narrative of ethnography, using George Mead’s *me*¹¹ in order to reflect on one’s individual experience. Appropriate ethnographic research requires “an object of study, that is, a social phenomenon or structured theoretical inference and generalization; evaluation by a critical scholarly community; evaluation by the subjects of the study; reflexive candor and transparency in writing; and mediation of tensions within the research project caused by different frames of research” (Michrina 2000; 212). Reflexivity is the framework in which the research is conducted; it is the “property of accounts, which are intentional communications that describe features of a situation (Leiter 1980:162 as cited by Michrina 2000; 213)”. Reflexivity provides not only a description of a situation but is in fact embedded within it (Garfinkel 1967:1 as cited by Michrina 2000; 213).

Reflexive ethnography exists on a continuum and there are levels of reflexivity that can be present in an account. Some accounts may be more reflexive than others;

¹¹ George Mead was an American philosopher and one of the founding fathers of pragmatism. His theory of “the Self and the Other” argues that the self (just like the mind) is a social emergent. This theory entails that individual selves are direct products of social interaction.

however, in assessing the academic rigour of anthropological research it is important that the ethnographer reports on their methods and thus acknowledges that their own behaviour and presence in the field are also data. This will result in the ethnography appearing more personal, biased and culture bound. However, it is humanly impossible to detach ourselves from our culture as it inevitably permeates into our thoughts and reflections. Whilst this issue cannot be entirely circumvented, the researcher can however state these biases so as to provide a complete ethnography that demonstrates sound methodology. In doing so, the anthropologist will become “as much the questioner” (Parker 1985:65 as cited by Watson 1987; 33). Reflexive ethnography allows for the silence and the indescribable within us to be expressed through the medium of *Homunculus mundus*, the world mirror, by showing the stories of humanity.

A.2.4 Grounded Theory

Grounded theory is a general research method for developing theories, which is *grounded* in data that is systematically gathered and analysed. The theory will constantly evolve throughout the research phase, through the back-and-forth exchange between theory and data analysis. Grounded theory research involves “generating theory and doing research as two parts of the same process” (Glaser 1978; 2 as cited by Strauss and Corbin 1994; 273) and results in grounded theory, or grounded description of the data. Grounded theory is commonly used in the social sciences and thus employs the same source of data as other qualitative research methods. These methods include interviews, field observations, written documents of any kind (diaries, newspapers, autobiographies, biographies, historical accounts) and video footage. Grounded theory does deviate from other theories in that it is explicitly “interpretative” (Strauss and Corbin 1994; 274) work and must therefore include the perspective and voice of the research participants. This is

necessary as it provides an understanding of the actions and thoughts of the participants. Grounded theory mirrors the central understanding of reflexive ethnography because the researcher needs to accept the responsibility of their interpretive role and assume the further responsibility of interpreting the data.

A.3. Research Question

How do local musicians perceive the impact that tourism has had on Calypso in Aruba?

B. Methodology

B.1. Position as researcher in Aruba

Owing to the very nature of Anthropology and conducting anthropologic field work, it is important to state the potential biases that a researcher can create, which will be thus reflected in the research. For the purpose of this thesis, it is salient to provide background information about the researcher in order to help the reader understand the overall research within the correct context. I am a Caucasian Irish female who grew up in Belgium. Although, having extensively travelled all over Europe, Australia and South East Asia, I was educated in Western Europe. My western education is in itself a potential bias as my opinions and approach to ethnographic research may be inadvertently and unconsciously tinged with Eurocentrism. In accordance with Nordstrom (2004), I recognise that the researcher plays a crucial role in determining the information they receive which will in turn frame the ethnography (2004:13). Although aware of this, it is almost impossible to remove any preconceived notions as personal opinions are the result of one's upbringing and experiences. Moreover, my physical appearance may have too created a bias.

In a similar vein, political ideals can influence ones' research. Thus, I will state that although my knowledge of politics is limited and will not categorise nor

label my political affiliations, I am more inclined to left-wing viewpoints. As such, this research will be framed in a reflexive ethnographic manner that will include an analysis of wider structures of power and control. I will endeavour to be honest in terms of who has exerted influence over my research and include my own analyses and thoughts on my experience researching Calypso. From this, I will construct my analyses in interaction with the field in an iterative-inductive way. I will provide an account, acknowledgment and disclaimer that this research is only a small part of a larger picture, perhaps fallible but nonetheless relevant in the holistic representation of cultural commodification.

Concerning the field of Anthropology, I believe that fieldwork conducted must be beneficial primarily for the culture being studied and ideally also for the researcher's culture. The research should not be a means for potential exploitation of the specific culture being studied, but rather an addition to the knowledge of world cultures. Through the reflexive method, this research will *show* stories of humanity rather than telling and speaking for the participants.

B.1.2. Field Research

I began researching this thesis several months prior to arriving in Aruba by reading literature on the subject of Calypso. A large majority of the existing literature on Calypso was on various islands around the Caribbean but not Aruba itself; in fact there appeared to be a paucity of written works on the subject. This led me to the decision to gather ethnographic qualitative data allowing me to create a written record of Aruban Calypso, formulated by Arubans themselves. This constituted the first phase of my research. The second phase began when I arrived in Aruba. I attended a talk on Calypso and met several future interviewees, all of whom being local Arubans. From these few encounters, using the snowball method I met many more participants and was invited to Calypso events. The interviews consisted

of semi-structured, open-ended questions as the intent was to gather various personal perspectives. The time and place of the interview was decided by the participant in order to make the overall tone and feeling relaxed and informal. By doing so, I was exposed to many different sides of the island; gaining a wider view of the culture and the diversity of Aruban society has aided in furthering my understanding of the research subject. Prior to each interview, I planned for all contingencies and tested the recording equipment. Additionally, four simple open-ended questions were prepared:

1. Background of participant
2. How did you discover/get into Calypso?
3. Has it/how has it changed since you were first introduced?
4. What are your thoughts about Calypso future? Should measures be taken to protect and preserve it? What is your opinion on Calypso being placed on UNESCO's intangible cultural heritage list?

In total, five interviews were conducted, two of which were focus groups with two or more participants. The fifth interview was retracted due to professional privacy concerns. Each interview was recorded and notes were taken throughout. During the focus groups, an assistant took notes so as not to distract and put off the participants. The interviews are based on each individual's respective experience of Calypso music on Aruba, focusing on whether and how they perceive Calypso to have been commodified over the years. Questions also focused on the interviewees' predictions for the future of the art form. Thus, the human tone is more important to this research than a rigorous research design. More specifically, the emphasis will be put on the experience of the cultural producer rather

than the tourist. In conjunction with running interviews, I conducted participant observation in accordance with Malinowski's functionalist theory¹². Due to arriving during the month of January, Carnival festivities were already in full swing and open to the public. I attended numerous Calypso events including the semi-final and final of the annual Calypso event, as well as the annual Jouve morning, carnival parades and a "welcome" cultural event for tourists in the capital city. In order to gain deeper insight into Aruba and Aruban society and their relation with Calypso, I attended events all over the island.

The third phase to my research involved the transcription of the five¹³ interviews, each of which were on average over an hour and a half. Subsequently, each interview was analysed. The interview material was not coded using qualitative analysis software but was classified chronologically into time periods up until the present day. This approach was decided to allow for a wide range of complexities and subtleties to be present in the analysis.

B.1.3. Analysis of data

The analysis process began with transcribing all interviews. Subsequently, the interview material was classified into chronological time periods. The reflexive methodology was followed: concept development, potential sampling pool, data collection, data analysis, and interpretation. Coding using a software was disregarded from this process, as the complexities and human element emerging from the data was preferred. Ethnographic content analysis (ECA) was used in order to document and understand the communication of meaning, as well as to verify theoretical relationships. The goal was to be both systematic and analytic, but not rigid in order to continuously discover and compare situations, settings,

¹² Malinowski functionalist theory stresses the importance of "participant observation" when understanding of the culture being studied

styles, images and nuances (Glaser and Strauss, 1967 as quoted in Altheide 1987; 68). A combination of structured data collection (based on protocol) and ethnographic field notes were combined to support a theoretical framework.

Present in the analysis is poly-vocality and dialogue, allowing thus the characters to speak for themselves whilst providing a backdrop of interpretation to make the statements relevant to the research subject (Kanaaneh 2002:132 as quoted in Yallup 2012). Through the reflexive method the authoritarian perspective was rejected and large measures were taken in order for theoretical sensitivity¹⁴ to emerge, thus also avoiding the potential over analysis of the data. A potential bias is the lack of female representation in the sample due to want of contact opportunities. However, this poses a relatively small bias as Calypso is a largely male dominated sphere and more significantly the research topic focuses on cultural commodification and not gender relations within the culture. Each of the participants remain anonymous, but are given pseudo names to allow for the analysis and meta-narrative to flow.

B.1.4. Grounded Theory

The grounded theory emerged from the data within the theoretical frame of cultural commodification. The theory will be discussed in the analysis section (section C).

C. Data Analysis and Results Presentation

In the following section, I will present my data analysis and findings. Owing to the ethnographic nature of the research, this will be put forward as a meta-narrative. The result of this study will be presented in a chronological order. Calypso will be traced by decade from its arrival in the 1920's to the present day. In doing so, information I

have gathered from conversations and interviews I have had with calypso musicians will be grouped together in these decades. The physical characteristics of interviewees¹⁵, the context in which data was collected and my subsequent personal reflections will be described and discussed. In addition, when possible Calypso lyrics specific to that period will be added to mirror the research (in line with the music's original purpose). As such, it will be in essence a story of the research, the researcher and the participants. The participants names will remain anonymous (as stated in section B.1.3) but their voice and perspective will be present throughout.

My first interview took place in a café in Santa Cruz. Over lunch with local young Calypsonian (for anonymity purposes referred to as Edwin), a dreadlocked man in his thirties, who began explaining the first record of Calypso presence in the Caribbean. It was an actual Calypso song that spoke of the Iron Duke (a war time boat) reaching the shores of Trinidad. This approximately dated back to the 19th century, or turn of. He continues and states, "I would like to think that Caiso is a creolisation of Griot¹⁶". This notion of Creole, or creolisation is something entirely unique to the Caribbean and was formed in the context of discrimination and deprivation of African descent. Just like Aruban culture being a mix of many cultures, the official language Papiamentu is a creole language. Calypso and Papiamentu are living forms of creolisation, and both central to the identity of Arubans. It provides them with a means to differentiate themselves from the rest of the Caribbean islands, and create a recognisable unique identity amongst other world cultures.

Prior to arriving in Aruba, I spent many hours researching Calypso and its historical relationship with the island. Although there is scarce literature on the subject,

¹⁵ Only if necessary to the narrative comprehension

¹⁶ "Songs of derision" (Van Dam 1954; 54) which were sung by local troubadours or "Griots" across Western Africa

¹⁴ The ability of an analyst to respond to nuances or implied meaning in the data, to understand what it is the persons are saying or doing and why

one historical fact I kept coming across was the opening of the Lago oil refinery in 1920, which marked the arrival of Calypso to Aruba. The refinery required many workers and thus a large immigration influx came from the British West Indian Caribbean islands, and with them West Indian food, music and clothing. The workers settled in “the village” in San Nicolas, which is now commonly known as the place where Carnival begun “with pots and pans and grew and grew” into its current form. Calypsonian Mighty Reds captures this in his song (see appendix 1.A). At the time however there existed a divide within the town, Edwin* mentions the physical separation of the “colony”¹⁷ and “village” and expresses what he feels was a form of racial segregation applied on the island. This racial segregation was briefly discussed, and Edwin resumes promptly to name the first Calypso kings on the island Paul Connor, Lord Boxoe, Quicksilver and Lord Kobashii. After extensive research, I could not find the lyrics of any their song lyrics online (or archived in the library) which I came to realise later is not viewed so much as a problem by the community, but more of a reality in that Calypsos are lived through people and not on paper.

When I did my transcription and analyses of my data, it emerged that the twenty-year period of 1940-1950 was omitted in conversation. The limited literature on the period indicates that this was a period of relative peace and prosperity on the island with the booming oil refinery being central to life and the tourism industry starting to flourish. Tourism was situated almost entirely downtown in the capital city and did not cross over into the realm of Calypso, which was concentrated uptown in San Nicolas. As such, an assumption can be made that Calypso art form was thriving in San Nicolas amongst the West Indian community. I had the opportunity to meet Calypsonian brothers, the elder sibling was and still is a famous musician and multiple time Calypso King title winner. According to them, Calypso was

¹⁷ “The colony” was a gated community where all the white refinery workers lived

booming in the 1960’s. Growing up, however, they could not sing Calypsos at home as they would get reprimanded for the inappropriate content.

This is analogous to any new genre of music emerging and clashing with the older generation’s taste and morals. In Britain and many other countries, The Beatles music caused tremendous controversy. A contributing factor to this clash is religion and Aruban society was, and is still is, Christian. Calypso was intrinsically linked to the West Indian community and to the more traditional Aruban the lyrics were at times unsavoury. This clash between Calypso and traditional culture is inevitable because one is denouncing the other, and can bring to the surface uncomfortable realities. If one understands Calypso to be a mirror upon which society is reflected; then the freedom allowed to the Calypsonian places them in a liminal position within the community. Name mentioning, and recounting of social issues comically and through a skilful rhyming scheme is all permitted in Calypsos. Edwin* put it clearly “Calypso always spoke about the political situation on Aruba, about the social situation, always, always, always... It’s un-inhibited”.

In 1970, Calypso was still almost entirely confined to San Nicolas, and if it was heard downtown in Oranjestad, West Indian people were playing it. However, it slowly became more of a part of Carnival as well as Aruban life, according to Edwin* “uptown always had more fire” which drew people from all over the island and thus gave it exposure. Social gatherings in San Nicolas, always included some form of live music whether reggae, soul and/or Calypso, the latter being extremely popular. Mentioning this, the Calypso brothers reflected on their first ever Calypso performances. The younger brother, John’s* first Calypso was titled “no grass, no mass” which alluded to the fact that if there was no marijuana there would be no crowd. John laughs, brushing the lyrics off as being young. This accurately captures the lack of inhibition that exists within Calypso, as such speaking about illegal drugs is permissible.

According to John, the Calypso contest in those days “was smaller scale, simple stage no big stage like this they had no much light, and a few bulbs and the nice thing about it is (...) they had a trailer, two trailer backs back side each other and pimp it up and paint up and put a few lights”. Although the annual Calypso event still takes place in the park, it has been entirely rebuilt recently and the actual performance aspect has also changed a lot. The audience would be sat in bleachers and the artists would make their entrance through the crowd on to the stage, hyping them up as they walk through just like a boxer would at a big match. John recalls this moment, “they call you name and you come dancing through the crowd people raaaah like when you see boxers and you come out and dancing because the band playing your song people going crazy or not if people don’t know you then you go on stage and start to sing “. The audience was entirely comprised of members from the West Indian community in San Nicolas: the refinery workers and their families. As such, all the Calypsos were in English as the audience only spoke English, “you had to come into the English slang for them to understand... that was great,” the older brother Peter noted. The use of English meant that it was exclusive to the people of San Nicolas, as the Dutch and Papiamentu-speaking population of Oranjestad didn’t understand Caribbean English. It is part of human nature to remember fondly what has happened in the past, to wash the memories over with rosy nostalgia. Recalling those events years ago, John* continued “it was really simple small but very joyful it was good.”

The closing of the refinery marked a new chapter for Calypso on Aruba. In the mid 1980’s the refinery closed, this meant a lot of the workers left, amongst them talented Calypso singers. However, Calypso was being played all year round at parties and on Baba Charlie’s radio show. The Calypso and Road march Monarch contest was a once a year opportunity for up and coming bands to get exposure through the medium of Calypso. John* recalls that “you had to play calypso for the band to get the lift and

we did and the band got a lift we didn’t really win, but we got popular.” That year Peter, at request of his brother John, performed his first calypso. The song in fact was about John sending Peter a letter asking him to perform for the band (see appendix 6.A). A couple of years later, Peter* went on to win the title Calypso and Roadmarch King in 1980, with his song “Arubian names” (see appendix 7.A) which became a classic. In true Calypso style, the lyrics were accused of being explicit but in fact did exist in the Aruban telephone guide. As such in Calypso, the talent lies in cleverly and comically describing a social situation or phenomenon.

Although an honour to win the title of Calypso and Roadmarch King and a pleasure to receive the significant prize money of approximately 550 guilders, it seems participation takes precedence over victory. For Peter “it wasn’t interesting to be for me winning you know I just wanted to participate for people to hear ... that is a the great thing about the final I didn’t win and that’s not the point.” The brothers explained that winning also entails a lot of criticism, on the contrary even if you don’t receive the title you may win over the crowd which would lead on to popularity and success for your band the coming year. The song content during that time was strictly about what was happening on the island, often a summary of the year’s events. For instance, two popular Calypsonianians of that era, Mighty Reds and Quicksilver, never sung about politics only about local situations happening in the community. Up until this point, Calypso was still heavily concentrated in San Nicolas.

The 1990’s up until the present day will be looked at as one whole, as the participants noted much overlap between the time periods. In the 1990’s, the annual Calypso event “The Calypso and Roadmarch Monarch” became the main musical attraction on the island. An official organisational body *Stichting Aruba Carnival* (SAC) was responsible for the contest and thus more funds were allocated to the event. Prior to this, the Tumba festival had been the annual

attraction and large target of contestation for Calypsonians whom poked fun at the Tumbadores.. During that time the Calypsonian was fighting for his identity caught in the “we is culture” struggle and Calypsos were used as a means to gain recognition from the Aruban society

This was all occurring in conjunction with the boom of tourism on the island, the industry had exponentially grown since the 1950’s into the main driver of the economy. The whole of Aruban society began to look inwardly in order to find means by which to set themselves apart from the other islands, in order to draw more tourists with their unique attractions. This fell to culture and more precisely “authentic” culture. This was a reaction to the perceived desires of the millennial tourists, the baby boomers were getting older, and as Edwin* stated “if you’re talking business you want the young market.” Thus, the Minister of Culture tried to find that authentic identity and brand it and then sell that identity to the new potential tourists.

The notion of authenticity is elusive and subjective to the individual. Nonetheless, there is an overarching understanding of what “authenticity” is, that which is unique and genuine and of undisputed origin. However, the rise of “ethno-tourism” in the past two decades has resulted in every aspect of culture being labelled as such for economic reasons. Aruba is no exception to this wider pattern in the Caribbean region. Walking around Oranjestad, I came across countless signs advertising “authentic cuisine”, “authentic Aruban souvenirs” and “authentic music.” In a conversation with the UNESCO representative, we broached the subject of “authenticity” and what that entails. Lydia* immediately declared that she didn’t like the word and preferred “the slangs more ... you have raw copies the core business of something instead of the authentic.” To Sam* local musician in a Calypso band The Failures stated that to him it meant “being true to myself as much as you possible can and that is my way

and that is what I want to portray out there” while for Edwin* “it is a feeling so it can’t be a thing, it’s a real island feel.” When I posed the same question to Matthew*, leading academic scholar on Calypso, he responded “how music hits the soul.” Whether it be authenticity in culture, music, or even personal life, the notion of what is authentic appears to be the vehicle through which a sense of legitimacy is achieved.

Although, the type of Calypso played on the island is unique to Aruba, it has largely not been included in the cultural branding process. Edwin* explained that the only exposure tourists could possibly have with Calypso is through the medium of hotels and this is on the condition that the hotel has a musician who plays Calypso music. A club may play a famous dance Socca song such as “Lucy” by Destra (see appendix 8.A), but aside from that there is no real propagation of the music. An important distinction to make is between carnival and calypso. Tourists flood the island during carnival seasons, and even participate in the road marches by paying a float to provide them with a costume and drinks during the parade. However, the music played during these parades is Socca, the more up tempo festive derivative of the mother music, and generally the lyrics are light hearted and aimed at having fun. Socca is not the poor man’s newspaper, but the poor man’s bacchanal. This is true for the carnival in Oranjestad, but what of the Calypso contest in San Nicolas? When I attended both the semi-final and final, I immediately noticed that I was amongst a handful of non-local Arubans present. I asked the participants their thoughts on more tourists attending the Calypso and Road march King event, Peter* laughed and said “they wouldn’t understand half of what’s going on but sometimes you don’t have to be to be in an adventure... be in the vibes,” adding that “you have to live among the people to know.” Lydia* alluded to a potential reason for the lack of tourist interest is the fact that Aruba has few international Calypso stars to draw in international crowds.

Prior to conducting my research, my perception of the relationship between tourism and Calypso had been black and white, imagined on a spectrum from corrosive to positive. From my perspective, informed by my own political views and the reading of literature, I formed an opinion that (mass) tourism was fatal to culture. However, throughout the research process my stance became more blurred: mass tourism and cultural preservation were not as decisively negatively correlated. Indeed, it was unexpected that the sphere of Calypso and the sphere of tourism didn't encounter one another. I expressed this when conducting interviews, and asked the participants their thoughts on the matter. Many spoke of the commodification, which was supposedly happening from within the Calypso community itself. Their explanations began in the 1990's, when large corporations began sponsoring the Calypso event, impacting Calypso as a whole. At the Calypso and Road March King contest, Digitel and Aruba Airport advertisements continuously flashed on giant screens on either side of the stage. Sponsors have introduced larger cash flows into these annual contests. This is evidenced by recent increased entrance fees, which contribute to the exclusivity of these events.

Peter* spoke about the impact of large sponsors of the event “there's is a difference now if you win then back then now you get 2000 guilders and I got 300.” John* added “I got second prize I got the 100 guilders and used it to buy a bottle of whiskey and sit in the yard and celebrate with everybody.” Peter* recalls an occasion upon which the winner of both the Calypso and Roadmarch contests only received 25 guilders, stating that “this is not right he had been supporting the whole carnival and the queen used to get car because they had big sponsors.” Although the presence of large sponsors changes the dynamics of the event, it isn't entirely a bad change. Peter* stated “now it's much better and they pay more” thus the artists can cover the cost of their costume and band, and even make money from their performances. This is the tangible impact

corporate sponsors have had upon the contest, bringing about its commercialisation.

A less obvious, intangible, impact of these sponsors has been the commodification of the music and lyrics itself. Calypso needs to have a good story expressed by a good storyteller who captures the imagination and feeling of everyone. This has changed. Aruba is unique in that a Calypsonian can perform with his own band, not an all-star band which performs with each singer. The content of contemporary calypsos has transformed, Peter* stated “I wouldn't compose a song like they would the... I would pick up a different topic I would chose a more roots topic”¹⁸ as such the lyrics are reflecting the younger generations' reality. The younger generation of Calypsonians is drawing inspiration from their experiences and putting these experiences in lyrical form in Calypsos. As such, Calypso is veering more toward its dance-based sibling Socca and further away from Caiso. Peter suggested “that we [the senior Calypsonians] can do nothing about because that's a new generation.” Moreover “the content isn't as important as a good rhyming scheme and rhyming story.” The lyrics have at once become more superficial, but also more personal. Lydia* spoke of this by saying that “you can be personal in such a beautiful way you won't even notice” but directly using names and divulging information in song is not acceptable as respect for the other musicians must be upheld. To my understanding, current Calypsos do not follow one straight narrative like they used to, and instead jump from one theme to another as Matthew* says “it's just a bunch of pieces ... like a comedy show.”

From these conversations, it came to light that Calypso has developed from its original form of story telling (almost) exclusively in the English language. Presently, Calypso is sung in increasingly in Papiamonto and occasionally in Spanish and Dutch. During the early

¹⁸ referring to young calypsonian singing about cars and other non-roots topic

twentieth century native English speakers accounted for 50% of the Aruban population. This has dropped significantly to 8%, but nonetheless the language has a historical importance. Caribbean English has been on the island for almost a hundred years which in Matthew's word "has some kind of significance for your country." It is during carnival season when the language is heard and used most with Sam suggesting that singing in English is a form of "respect to the elders and ancestors and those who help build Aruba, run down now this is the place that sparked Aruba's development there would be no Palm Beach or Oranjestad and all the smoke we inhaled and the folks who work in the refinery and got their hands dirty." The language preservationists promote the use of English in Calypso from a purely historical heritage perspective. The assimilationists advocate for multilingualism in Calypso. However, linking back to Lydia's earlier comment, attracting tourists through big international stars would demand that the songs be sung in English, given its status as the dominant language in the global music scene.

Aside from the issue of language, what does the future hold for Calypso? Initially, I perceived tourism as a threat to Calypso. When I asked Edwin*, he quickly replied by shaking his head "no no calypso is safe. I don't think we have a problem looking into the future with Calypso, we have talent enough" but did agree however that it should be placed on UNESCO's Intangible Culture list. Sitting in UNESCO office in Oranjestad speaking to Lydia* seemed a fitting location to discuss the question of Calypso being recognised as Aruban intangible cultural heritage. The process involved is lengthy and heavily bureaucratic, a convincing case being required which validates Calypso's nomination and more importantly how the tradition will be kept alive in its most raw form. The kernel of this is that it must be the heritage community, which defines the phenomenon; it cannot be the UNESCO office itself, which is simply a medium for the information to be passed on and officialise the demand. Currently, there is a paucity in literature on the subject and

moreover there is no archive logging the song lyrics. This makes it a difficult task to compile a case to be presented through UNESCO. From the perspective of the musicians, or cultural producers as some prefer to be called, Calypso "might even die out, when we go it goes too." Others believe it will continue on developing but "music is dynamic and if you want it to remain you have to go with the time that's just the way it is." Music is a living entity and will thus inevitably change over time. For the moment, the love people show for Calypso is guaranteeing its survival. As Lydia* said "it's really the locals who carry it."

Placing Calypso on the intangible cultural heritage list isn't necessarily the answer, but could be a step in the right direction according to Lydia* because once officially defined it can be formally instructed through workshops in schools for instance. This would give Aruba's next generation an exposure to Calypso, and this might keep it alive. Aruban Calypso is uncontestedly unique, however as Matthew clearly stated "we have something very valuable some people don't even realize, we have to change our mind set because you can change many rules ... but you probably might kill it because people don't want to participate anymore." The heritage community needs to organise itself and bring forth the effort and initiative for recognition as this effort will not come from the Aruban Government. It is only fitting as it is the cultural producers are the living carriers of this heritage. The people are the organic roots of Calypso, the roots that will keep the Calypso art form nourished and alive.

D. Conclusion

To conclude this paper, the research question will be addressed. How do local musicians perceive the impact that tourism has had on Calypso in Aruba?

Local Aruban cultural producers do not perceive tourism to have had any direct impact on Calypso. The sphere

of tourism and Calypso have not seeped into each other directly. Calypso music is not being played in the Hilton hotel lobby nor are there organised trips for the tourists to attend the annual Calypso and Road March King contest. However, tourism has indirectly affected Calypso. Through the guise of foreign investment in the form of chain hotels, time-shares, condominiums, restaurants and other luxury commodities sought after by tourists, tourism has brought about a process of commercialisation on the island. This phenomenon has made its way into Aruban popular consciousness and mentality whereby everything, including the intangible, must be changed in order to maximise economic profit. Calypso, just like countless cultural features around the world, has been swept up into this current.

E. Discussion and Analysis

This section will be in two parts. The first part will discuss the research further and what it entails for Calypso music. The second part will be a discussion on my personal reflection on conducting ethnographic field research.

One can hypothesise about how Calypso will develop in the future, and what measures can be taken now to prevent it from changing from its current form to one which is unrecognisable. There will never be a unanimous decision; it will remain a struggle between retentionists, who desire to retain it in its original form, and adaptationists, who advocate adapting to the changes brought on by time. This is not exclusive to Calypso, indeed anything that is “culture” is embedded in a highly sensitive and contested sphere because culture is the genesis of human identity. It is therefore every individual’s prerogative to perceive culture differently and subsequently to debate it. Conducting ethnographic research on Calypso brought to light the complexity of culture, and the importance to include all attitudes and nuances particularly when intangibles are concerned. A communal awareness will

ensure an understanding, and potentially the safeguarding of the cultural heritage, as it is through individuals that intangible heritage will live on. Allowing for the fact that everything, including culture, is a potential commodity, it would prove interesting to conduct further research on how tourist destinations (i.e. host societies) can access new forms of exchange, other than through the sphere of commodification.

Conducting ethnographic field research on a culturally sensitive topic such as Calypso brought to light many of my own culturally bound notions and opinions. By engaging and participating with the research participants in conversations and their cultural events, I became aware of what I embody and represent to others. At numerous occasions, I found myself justifying (perhaps even to myself) my position as a researcher in Aruba. As a Caucasian European and female university student, I felt the need to validate my research and relate to the participants by demonstrating my extensive knowledge on the subject matter. This is characteristic of conducting anthropological research. Owing to the subject’s embarrassing history with colonialism, it seems to assume a position of superiority of the researcher. However, the researcher is just as exotic -to use Malinowski’s terminology - to the participants but the onus is on the researcher to reciprocate the openness of the participants. Ethnographic research has to be mutually enriching through the medium of ethno-dialogue as “knowledge is no longer a stolen secret, devoured in the Western temples of knowledge; it is the result of an endless quest where ethnographers and those they study meet on a path which some of us now call shared anthropology” (Rouch 1978: 104-18, as cited by Michrina, 2000).

Throughout the research and by discussing the “why” behind many of the participants’ attitudes toward Calypso and Aruban society as a whole, I discerned my own cultural limitations. For instance I began to view things in a less binary way and accepted a more grey, nuanced

approach. On a more methodological aspect, owing to not being able to contact and interview a female Calypsonian, this paper is entirely from a male perspective. However, ironically enough, this is a mirror image of the Calypso culture on an island, which has very few female artists. On a final note, this research was not intended to be reflective of an entire island's perception of the impact of tourism on the local Calypso music. The central aim was to create a tangible record of the voices of the cultural producers on an intangible entity. This inevitably includes biases as anything involving human emotion naturally would. The question remains of how to preserve the intangible?

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Appendix

1.A

“Calypso is a thing I’m telling you

When you are singing you must learn to be impromptu

Never mind your English but mind your rhymes

When you get the gist of it, you sing it all the time

For veteran Calypsonians are known to be

Men who can sing on anything instantly.”

(Gorilla; 1938)

2.A

“Since the Yankees came to Trinidad

They have the young girls goin’ mad.

The young girls say they treat ‘em nice

And they give them a better price.

They buy rum and Coca-Cola,

Go down Point Cumana.

Both mother and daughter

Workin’ for the Yankee dollar.”

(Lord Invader, 1942)

3.A



Wall separating “ the colony” from “ the village”, i.e. San Nicolas

(Pictures by Ben Bultrini, 2017)

4.A

Long time aao things was slow,

The island production was very low

Used to kneel down and then pray

That the good lord would send rain the nexy day

For we used to plant in order to live

And the little we got we could barely give

Then Lago came in the place

It was bread and butter for every race

So let we God bless Lago, Oil Refinery

(Lord Boxoe; 1984 for 60th anniversary of refinery)

5.A

No matter where carnival start

San Nicolas of Oanjestad

The main purpose of people has was to celebrate culture and art

Tivoli did their thing and San Nicolas and also did their thing

So people say its Aruba carnival we celebrate

(Mighty Reds; date unknown)

6.A.

As I am sure all you of you know

I have never been a singer of Calypso

I used to stand there in the back all on my own

And accompany my boys on the saxophone

But I received a latter from Amsterdam

me brother said he couldn't make his bram

And in his letter he presented a convincing case

And told me to put my sax on thing and take his place

(Mighty Reds; date unknown)

7.A.

Well this is the funniest of them all

I have studying this thing from since I am a small

Some people have names that don't even suit

Others have names that are damn well cute

But if you want to laugh till your belly abepainted

Take a close look at our arubian names

We have a I leave your Kok

Peto Kok

Aseen your Kok

Denise Kok

Vehein yourKok

Tititchi Kok

Geraldo Kok

And even My Kok

(Mighty Reds; date unknown)

8.A

Lucy, Lucy Queen ah Bacchanal

I grew up as ah real good girl

Always home, don't go nowhere

As soon as I was introduced to Carnival

Dey say I loose All down on di ground

Wukkin', wukkin' up mi bottom and it

Draggin', draggin' all ova town

(next verse)

Is the Bacchanal inside of meh...

Aw yeah When I come on ah stage,

get in ah band

You know I loose

When I drop it hot an I winnin'

On top di speaker box an I grindin'

I'm not da one to stop

(Lucy by Destra Garcia; 2015)



Yun Lee, University College Utrecht

“I am not sure whether I am here for vacation or for research”- so I said to my friends in the Netherlands. Absence of a set academic schedule, clear sky, and occasional visits to the beach threw me into the confusion. This confusion, however, soon subsided when meetings with the professionals in my research topic and the directors of schools took place. Things got serious, and I needed to come to grips with the research.

But how serious can it become when you are surrounded by stunning beaches, sunny weather, and great people? I would say, not much. In fact, ten weeks in Aruba have been the time for me to confirm my passion towards research, my field, and future aspirations, rather than of confusion or stress. Flexibility in arranging my own research, having hands-on experience, and support from fellow students and professors have allowed me to achieve intrinsic motivation towards my academic field. I am confident that

this academic experience will become good nutrients for fruitful future.

UA-UCU project, however, has been much more than good academic experience. It has brought me friendships, which, dare I say, are different from other ones. Every single person I have met here, and come affectionate with, is someone I would not have had the chance to encounter easily in my life. If I had not joined this project, it is most likely that I would have never known how open-minded, reliable, and lovable the people I met here are. For this (and for the superb academic experience) I would like to thank Eric Mijts and Jocelyn Ballantyne for making this project happen.

Of course, I shall not forget to thank the people who have made my stay in Aruba especially enjoyable and valuable. I would like to thank, Luc Alofs, and Hellen van der Wal for their great willingness to help and give advice on my research, all school directors, teachers, and students for making my research possible, my fellow students for their emotional and academic support, and last but not least, my research assistant, Genesis Ruiz, for bravely stepping out of her comfort zone and helping me immensely in smoothly running this research project. Without these people, my experience on Aruba would not have been complete.

A Correlation between Cultural Identity and Juvenile Delinquency in Aruba

by Yun Lee

Introduction

Culture plays a crucial role in identity development (Bronfenbrenner, 1997; Erikson, 1959). It provides a frame in which individuals construct a self that aligns with their cultural values and beliefs (Erikson, 1959). With adolescence being a critical period for identity development without a settled identity yet (Erikson, 1959), the role of culture is particularly salient among youngsters (Jensen, 2003). With their greater access to social media, adolescents are more frequently encountered by different cultural contexts, and are more influenced by different beliefs, ideas, and values than adults are (Arnett, 2002; Nguyen & Williams, 1989; Phiney, Ong, & Madden, 2000).

The influence of the exposure to multiple cultures may be especially strong in Aruba. As with other Caribbean nations, the small island nation has been home to people with various ethnic, linguistic, and religious backgrounds, often without a clear major or minor cultural group (Premdas, 1996; Sharpe, 2005; Alofs 2008; Van der Wal, 2012). This circumstance brings forward a point of interest from a cultural perspective. Although the scarcity of research on the island (Alofs, 2008) leads to a difficulty in illustrating exactly how culture plays a role on the Aruban community, prior studies suggest

that a certain aspect of cultural identity developed in a bicultural society has been linked to downsides, including juvenile delinquency and psychological anxiety (Forster et al. 2015; Samaniego & Gonzales, 1999; Stevens, Veens & Vollebergh, 2014; Thoits, 2011).

Juvenile delinquency, or criminal acts committed by youths, is one of the issues that need to be paid attention to in Aruba (UNICEF, 2013). While a study by Hellen van der Wal (2012) indicates that the problem of juvenile delinquency is not at an alarming stage, UNICEF (2013) and David Francisco Leer (2016) illustrate that there is a growing number of younger aged youths becoming involved in problem behaviors, urging the importance to develop appropriate mechanisms for dealing with juvenile offenders.

Based on the above circumstances, the current study aimed to investigate a link between cultural identity and juvenile delinquency among Aruban youths. Primarily, the current research focused on an association between youths' cultural affiliation and belongingness to Aruban culture and/or their second and third cultures and their juvenile delinquent behavior. In addition, the study aimed to illustrate different cultural groups that adolescents in Aruba feel affiliated with. It also examined youths' internalizing difficulties, such as emotional

problems, to grasp a clearer view on cultural impacts. The goal of the research paper was to gain deeper understanding in these matters. This may aid not only in reducing a school dropout rate and gang formation, both of which are worrying issues in Aruba (Lopez, 2015), but also in providing an insight into youth's wellbeing in a multicultural society in general.

Literature Review

Importance of Culture on Identity

To illustrate a possible link between cultural identity and juvenile delinquency, it is crucial to understand the impact of culture on identity. Identity develops within a sociocultural frame. Individual's beliefs, behavior, values and goals are constructed as the individual interplays with his or her surrounding environment (Erikson, 1959). People raised in different cultures, for instance collectivistic or individualistic culture, tend to develop self-perceptions that are in align with their cultural values. As an example, people who are raised in the United States show strong self-enhancement, while those raised in Japan show strong self-criticism (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). Likewise, numerous studies show a significant impact of culture on identity, including self-cognitions, and future aspirations (Kitayama, 1990; Markus, Unemori, Omoregie and Markus, 2004). Culture is, in fact, a crucial factor in identity development.

Cultural Context in Aruba

If culture plays a major role in youths' identity development, then how does identity develop when youths are raised in a multicultural context, like Aruba? Due to Aruba's colonial history, and more recently, globalization, the island has been home to people with various linguistic, ethnic and religious backgrounds.

From the discovery by the Spanish in 1499, to the conquest of the island by the Dutch in 1636, and by the British in the early 1800s, the island has had influences from various external cultural forces. More recently, the start of oil industry in the 1920s has attracted immigrants, such as industrial labors, merchants, and civil servants, from the Caribbean region, Europe, South and North America, and China. Consequently, Aruba has become a multicultural and multilingual society with over 40 nationalities dwelling on the island (Alofs, 2008; Van der Wal, 2012).

As a consequence, when it comes to defining a cultural identity of the Aruban community, it becomes a bit complicated. Prior research has shown that the group identification of children often occurs with dominant groups in their cultural setting. Hence an ethnic minority child in the United States would desire to become White (Phinney, 1989, cited in Phiney, 2000). This leads to the sub-question of how youths in Aruba develop group identification, especially when there is no dominant ethnic or cultural group on the island.

Juvenile Delinquency in Aruba

The current research does not only examine the cultural identity among youths. As mentioned in the introduction, delinquent behavior among youths is also part of the current research. While a scarce amount of research on delinquent behaviors on Aruban youths exists, UNICEF (2013), Leer (2016), and Hellen van der Wal (2012) provide crucial information on Aruban youths' delinquent behaviors. For instance, Van der Wal (2012) illustrates in her study that about half of the adolescents have done undesirable behaviors, although mostly minor crimes, including illegal downloading, sexual harassment, and setting firework. Her study shows that the state of juvenile delinquent behavior is not alarming in Aruba yet. Van der Wal nevertheless

suggests that it is still worth paying attention to for the safety and the wellbeing of the society.

Leer (2016) has reported that there is a growing number of younger aged youths becoming involved in undesirable activities in Aruba. It is particularly so when it comes to gang activity, which Aruba has seen an increase of from 20 gangs in 2007 to 32 gangs in 2011 (Lopez, 2015 cited in Leer, 2016). As some of these are said to be violent and dangerous (Lopez, 2015, cited in Leer, 2016), paying special attention to prevent youths from getting involved in a gang seems to be needed.

Moreover, a recent report from UNICEF (2013) has urged for a consistent state policy to respond to the needs of children and adolescents with three key elements, one of which includes the system of juvenile justice. It has highlighted the importance of developing and strengthening appropriate mechanisms for dealing with juvenile offenders, of putting in place measures to prevent children from getting involved in activities that are in conflict with the law, and deepening knowledge of the situation of children, and adolescents through ongoing monitoring.

Overall, the above studies indicate that juvenile delinquency in Aruba is worth heeding. As only a scarce amount of research exists on Aruban youths' delinquent behavior, this scientific study will hopefully contribute to the deepening understanding of Aruban youths.

Hypothesized Relations

In accordance with the theoretical and empirical evidence discussed in previous sections, the present paper was designed to assess whether cultural affiliation and a sense of belonging towards Aruban culture and/or second or third culture was associated with juvenile delinquency among youths aged between 13 and 14.

Researcher attempted to select students aged 13 or 14 because: 1) juvenile delinquency starts developing at the age of 12 and peaks at the age of 17 (Moffitt, 1993), and 2) cognitive development for self-reflection and abstract thinking start developing at the age of 13 (Piaget, 1952). Therefore, it was most likely that students aged between 13 and 14 had developed sufficient cognitive abilities to answer questions that require self-reflection, and already showed some signs of juvenile delinquency. Based on previous findings (Stevens, Veen & Vollebergh, 2014; Samaniego & Gonzales, 1999), it was hypothesized that higher cultural affiliation and a sense of belonging towards Aruban culture would be associated with higher delinquent behavior, beyond the influence of known risk factors, such as negative family environment, absence of peer support and low socioeconomic status. For the study, adolescents were recruited from three different schools in Aruba, two from San Nicolas, and one from Oranjestad, providing a more geographically diverse portion of youth population than would be available at any one location.

Method

Sample. 171 students from two MAVO schools and one HAVO-VWO school participated in the study. The age of these students ranged from 13 to 18, with the mean age of 14.5 years old. The schools were approached by the reference from authority. The students were then selected based on the availability. Of the students, 87.7 % of the students indicated themselves as Aruban, 10.5% indicated themselves as Colombian, 7% as Dutch, 5.8 % indicated themselves as Venezuelan, 5.3% as Dominican, 1.2% as Haitian, and 15.8% as other, such as Chinese, and Filipino. The students were allowed to select more than one nationality.

Instruments. An adapted version of Health and Behavior of School-Based Children (HBSC)-Nederland was used

to obtain demographic variables, to measure adolescents' internalizing difficulties, and to measure their cultural affiliation towards Aruban culture, and their second and/or third culture(s). The validity and reliability of the instruments have been supported by previous studies (Boyce, Torsheim, Currie & Zambon, 2006; Cheng & Chang, 2005; Di Riso, 2010; Goodman, Meltzer, & Bailey, 1998; Zimet, Dahlem, Zimet & Farley, 1998).

Demographics. Participants were asked about a number of background factors, including importance of religion, the languages that they spoke at home, family atmosphere, peer support, and socioeconomic status. As these factors are risk factors of juvenile delinquency (Becker & Melkop, 2006; Berry, Phinney, Sam & Vedder, 2006; Brauer & De Coster, 2015; Donahue & Benson, 1995; Loeber, Capaldi & Costello, 2013), they were controlled for a more accurate result of the study.

Cultural Affiliation. Items about cultural affiliation were rated on a 4-point scale: 0 = *completely disagree*, 1 = *somewhat disagree*, 2 = *somewhat agree*, and 3 = *completely agree*. Questions included: *I see myself as Aruban; I am part of the Aruban culture; and I am proud to be Aruban.* The same questions were used for other cultures, only this time, participants were asked to fill in the name of the country that they felt belong to. The sums of the scores from the three questions were used to indicate their affiliation and a sense of belonging towards Aruban culture and/or other cultures.

Juvenile Delinquency. A shortened version of Zelfrapportage Delinquent Gedrag (ZDG) was used to obtain self-reports on youths' delinquent behaviors. Participants were asked to rate the occurrence of problems in the preceding 12 months on a 5 point-scale: 0 = 0 times, 1 = 1 time, 2 = 2 times, 3 = 3-10 times, 4 = more than 10 times. The sum of the scores was used to indicate the overall frequency of delinquent behavior.

Internalizing Difficulties. Items about internalizing difficulties were primarily from the Strength and Difficulties Questionnaire (SDQ), with a total of 20 questions, with each five questions focusing on hyperactivity, emotional problems, conduct problems, and peer issues. These items were rated on 3-point scale: 0 = Not true, 1 = Somewhat true, 2 = Very true. The sum of the scores was used to indicate the internalizing difficulty, and the sum of each section was used to specify which problem participants struggled with the most.

All of the questionnaires were translated into Papiamentu. Translation-back-translation procedure was used for the consistency of the language use in the survey.

Procedure Two to three days prior to the research passive consent forms were sent to the parents to obtain approval on the research. Prior to filling in the questionnaires, informed consent form was additionally distributed to participants to obtain approval from them. A brief introduction and instruction about the survey were given in both English and Papiamentu.

During the study, only the researcher, a research assistant and a teacher were present in the room. The research assistant aided the researcher in translating a verbal instruction into Papiamentu, and the teacher was sitting in front of the classroom for the comfort of the children.

Result

Analytic Strategy

Partial correlation and hierarchical multiple regression analyses were conducted to test the hypothesis that cultural affiliation towards Aruba would be associated with delinquent behavior. Gender, age, importance of religion, socioeconomic stats, perception on one's wealth, family atmosphere, and peer support were controlled in both analyses.

Preliminary Analysis

Table 1.

The mean score of items used to measure affiliations towards Aruban culture, a second culture and a third culture (N=169)

Descriptive Statistics			
	N	Mean	Std. Deviation
Aruba Culture2	169	6.8580	2.20469
Culture3	49	6.7347	2.32536
Valid N (listwise)	10	5.9000	2.72641

Table 2.

The mean score of item used to measure juvenile delinquency (N= 116)

Descriptive Statistics			
	N	Mean	Std. Deviation
JuvenileDelinquency	116	5.7241	6.72644
Valid N (listwise)	116		

Table 3.

The mean score of item used to measure internalizing difficulties (N= 155)

Descriptive Statistics			
	N	Mean	Std. Deviation
EMO	169	4.1598	2.51506
HYP	166	4.1446	1.66702
COND	165	2.8303	1.83338
PEER	166	3.0602	1.89960
Strength and Difficulties Questionnaire score	155	14.2000	5.37478
Valid N (listwise)	155		

Table 1 shows the number of students who showed cultural affiliation towards Aruban culture, the second culture, and/or third culture, and the mean score on the scale. The mean scores of Aruban culture and second culture are fairly large with Aruban culture: (M = 6.85 [SD = 2.20]) and the second culture: (M = 6.73 [SD = 2.32]). This may indicate that the adolescents did not have a major difficulty in defining themselves as “Aruban” or others. Table 2 shows the mean score of juvenile delinquency with M = 5.72 [SD = 6.73]. This low mean score of delinquent behavior may suggest that participants’ delinquency is not at an alarming stage. Lastly, Table 3 shows the mean score of SDQ questionnaire, and of each section. It shows that the mean scores of emotional problems (EMO; M = 4.16, [SD = 2.52]), hyperactivity (HYP; M = 4.14 [SD = 1.68]), conduct problems (COND; M = 2.83, [SD = 1.83]), and peer problems (PEER; M = 3.06 [SD = 1.90]) are within the normal range of difficulties (Goodman, Meltzer, & Bailey, 2003).

Partial correlation showed that there was no significant relationship between affiliation towards Aruban culture or towards the second culture and delinquent behavior. The same result was yielded when hierarchical regression analysis was used.

However, a significant negative correlation was found between cultural affiliation towards Aruban culture, and the scores on Strengths and Difficulties Questionnaire (SDQ), $r = -.231$, $p < .01$ (one-tailed). This significant correlation was neither found between affiliation towards second culture and the total SDQ scores nor between cultural affiliation towards Aruban culture and the total SDQ score when controlled for the second culture. The hierarchical multiple regression also revealed that adding cultural affiliation towards Aruba to other risk factors, such as socioeconomic status, peer support, and family environment, explained an additional 4.0% of variation in the total SDQ score, and this change in R^2 was significant,

$F(10, 110) = 4.49, p < .05$.

Discussion & Conclusion

The study aimed to investigate a link between cultural affiliation and juvenile delinquent behavior. Contrary to the hypothesis, preliminary analysis shows that there is no significant link between cultural affiliation towards Aruban culture or the second culture and juvenile delinquent behavior. However, additional analysis shows that there is a significant negative link between Aruban culture and SDQ score, meaning that the more participants felt as Aruban, the lower the internalizing problems they had. It is important to note that the significance of this correlation disappeared when the cultural affiliation towards the second culture was controlled, indicating that the role of the second culture may be crucial in internalizing problems. In fact, as the result shows that the mean score of cultural affiliation scale is moderately high for both Aruban and the second cultures, it is possible that, among youths who identify themselves with more than one culture, those with integration acculturation status, or high cultural affiliations towards both the host culture (Aruba) and the culture(s) of origin (cultures other than Aruba), are particularly less susceptible to internalizing problems. This is in line with prior research, which has shown that integration is a crucial factor in good mental health (Nap et al. 2015).

Furthermore, no significant correlation between cultural affiliation and juvenile delinquency may additionally suggest that adolescents in Aruba tend to internalize problems. This means that when the youths face a problem, then they tend to inwardly solve it, hence increasing the chance of anxiety and depression, rather than externally doing so, hence decreasing the chance of delinquent behavior. This, too, can be explained through cultural influence. Prior studies show that societies with strong cohesiveness, as with collectivistic society, set a clear standard of behaviors that limit personal freedom

in expression of individuals' own thought. This societal atmosphere leads to less externalizing behavior, and more internalized problems (Caldwell-Harris & Ayçiçeği, 2006). While this may explain van der Wal's (2012) results on the low severity of juvenile delinquency among Aruban youths as well as the current study's results, whether this is the case with Aruban youths is difficult to say due to the scarcity of scientific research in this area. This may pose as an interesting question for future study.

The above findings are subject to limitations. Although Papiamentu is the most spoken language in Aruba (Alofs, 2008), not all students were fluent in Papiamentu. This was apparent during the study as a few students struggled with answering the questionnaires due to a lack of clear understanding of the language. Moreover, because of the cross-sectional design of the study, the direction of the correlation could not be examined. It was assumed that more integrated students showed less internalizing difficulty, but it is possible that those who struggle less show more integrated acculturative pattern. Lastly, as there is no other group to compare Aruban youths with, it may be premature to firmly infer Aruban youths' tendency towards internalization rather than externalization.

More importantly, the findings are based on a preliminary analysis. Hopefully, the final research will provide additional information to the current analysis.

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The first time I heard about the UAUCU research exchange project was last year. I learned from my friends who took part of this project how good they experienced it. When I received an email from my academic coach inviting me to consider joining the unique UAUCU research experience, my answer was immediately: YES! I'm in! This was an opportunity set right before me and I just had to take it. I knew that I would need to give a lot of time and dedication to this project. I also knew it would be difficult to manage my time between internship, handling other assignments, my personal life, and this project, but I was up for the challenge.

I was very curious to see what this project had to offer. During the field trips I got to see Aruba from a different perspective where I learned new things of my Island. As the project continued I was amazed to see how everything fit in with each other. That was the most beautiful part of this project. We all had different research topics yet there were

similarities among each other.

Being part of this project had great benefits. I had the opportunity to meet international students. We were a very multicultural group. This gave me the opportunity to broaden my network. During this journey we all shared our success and challenges of our research with each other. We gave each other support when needed. As for me I have also found a respondent to interview for my research through this project. Even our research findings had significance for the others' research.

To conclude, I am very glad I took part of this research project. I would like to thank Mr. Eric Mijts and Ms. Jocelyn Ballentyne for organizing this research project and providing their support throughout the entire journey. I also like to thank each student who took part of this project who made it something unforgettable for me. If you are a student who is considering joining this project, please do, you will not regret it!

Understanding the roots of parasuicide among the adolescents in Aruba: associated risks and protective factors

By Tanya Kirchner

Chapter I: Introduction

1.1 General Introduction

This paper provides the research design and the preliminary findings of the pilot research on the roots of parasuicide among adolescents in Aruba.

Suicide is affecting our adolescents today, unless the main causes are identified, suicide will continue to take the lives of our youth. Globally, according to the Health Monitor of Aruba (2013), “Every year, almost one million people die from suicide. There is a global death rate of 16 per 100,000 or one death every 40 seconds.” Suicide is the eighth leading cause of death in the United States of America and worldwide it ranks ninth among causes of death (Welch, 2001).

Regionally, two Caribbean countries starting with Guyana have featured in the highest suicide in the world (World Health Organization 2012). “Guyana has the highest estimated suicide rate for 2012 globally, and close by Suriname is the sixth highest on the list” (World Health Organization 2012). Traditionally, suicide rates have been highest among the elderly male group however, these past few decades the rates among young people have been increasing in a way that they are now the group with the highest risk worldwide (Health Monitor, 2013).

Parasuicide is defined as an attempt to commit suicide, yet has not result in death (Welch, 2001). “Parasuicidal behavior refers to suicidal attempts or other deliberate self-inflicted injuries with or without suicide intent” (Health Monitor, 2013). Some examples include a sub lethal drug overdose or wrists slash. Most cases of parasuicide are associated with mental health problems, particularly: depression, alcoholism and personality disorder. When looking at the statistics of parasuicide in Aruba, “parasuicide is more common among women, particularly women younger than 45 years, and to be more specific those women between the ages of 15 and 25 years” (Health Monitor, 2013). Shaffer (2004), reported that suicide attempts globally are more common in the group of adolescence. It is for these reasons, I have chosen to investigate the causes of suicide amongst adolescents in Aruba.

1.2 Problem Statement

According to the Health Monitor Aruba (2013), in the year of 2010, the data shows that parasuicide (attempted suicide), was the highest amongst the age group of 15-19 years (26.4%).

The Department of Public Health of Aruba conducted a ‘Youth Health Survey’ in the year 2013, where suicidal thoughts were observed among the adolescent

students. The results showed that almost 15% (n=687) have sincerely thought about killing themselves 12 months before the survey. From this 15%, more than two thirds were females (69.1%) and one third males (30.9%). Out of the total 687 adolescent who seriously had the thought to kill themselves, 99.9% made a plan how they could execute it. Unfortunately, 420 of these adolescents (61.1%) indeed did try to kill themselves.

When analyzing the adolescents who indeed tried to commit suicide (n=420), data shows that the male population 66.7% tried it once, followed by 19.2% who tried it 2-3 times, 5.0% tried it 4-5 times, and 5.7% tried to kill themselves 6 times or more (Youth Health Survey, 2013). On the other hand, in the female population, data only indicates a high percentage of trying to kill themselves 2-3 times (30.9%) as compared to the male population. When comparing the percentages overall, the data shows the male students are the ones with the highest percentages of trying to commit suicide.

When analysis was done by age group, (Youth Health Survey, 2013), the data showed that the older the students, the more they attempted to commit suicide one time. For example, at the age of 12 the percentage was 61.1% and at the age 19 the percentage was 75.0%. On the other hand, “there is a decrease in percentage as the age increases for those students who tried to commit suicide 4-5 times” (Youth Health Survey, 2013). At the age of 12 the percentage was 11.0% and at the age 19 the percentage was of 0.0%.

Analysis was also done by level of education (Youth Health Survey, 2013). The results were the following: 76.7% of EPI students have the highest rate who tried to kill themselves once. The HAVO/VWO students, 29.0% attempted suicide 2-3 times. EPB students have the highest percentage of suicide attempt 4 times or more and 6 times or more.

When looking at the statistics of parasuicide in Aruba, parasuicide is more common among women between the ages of 15 and 25 year. “The highest rates of parasuicide are found in divorced women, single, or teenage wives, and is often linked to poverty. Most cases of parasuicide are associated with mental health problems, particularly: depression, alcoholism and personality disorder” (Health Monitor, 2013). Conversely, the ‘Youth Health Survey (2013), shows that the Aruban male students were more likely to attempt suicide.

In comparison to other Caribbean countries the females reported higher rates for attempted suicides. While analyzing the results with the Caribbean region, 12% of the adolescents in the Caribbean region have attempted suicide (Blum et al., 2003). Aruba has a lower percentage of attempted suicide which is 8.8% (Health Monitor, 2013). Even more, while comparing Aruba with South America, specifically Peru, it showed that “Peruvian adolescents have a much higher percentage of attempted suicide cases with 20.0% of the adolescents, especially among the females” (EGSE Peru, 2010).

Although the exact rates for parasuicide among adolescents worldwide are unknown, the ‘World Health Organization’ (2000) estimates the rate to be 40 - 100 times higher than the suicide rate recorded each year. The important question remains whether the causes of suicide attempts are related to gender, age, educational background, family background, cultural background, mental health problems, and economic situation.

1.3 Research Questions

The main research question is:

What are the main reasons adolescents attempt suicide in Aruba?

The sub questions have been formulated as follows:

What are the reasons adolescents attempt suicides in Aruba?

What are the common warning signs of adolescent suicide attempts?

What are the risk factors associated with parasuicide amongst adolescents?

What are the protective factors associated with parasuicide amongst adolescents?

1.4 Research Objectives

The objectives of the research are as follows:

1. To identify the risk and protective factors associated with incidence of parasuicide amongst adolescents in Aruba.
2. To identify the behavioral indicators of parasuicide amongst adolescents in Aruba.

1.5 Relevance of the Study

The suicide rates among young people in Aruba have been increasing to such an extent that they are now the group at highest risk worldwide (Health Monitor of Aruba, 2013). As a social worker one has the responsibility to recognize this issue. One of the core values of the social work profession according to the (NASW code of ethics) is Service. Meaning, "Social workers' primary goal is to help people in need and to address social problems. Social workers elevate service to others above self-interest." The role of social workers in Aruba for this case, is to find ways to reduce incidence rate of suicide. The findings of this research will go a very long way to make recommendations for the improvement of services and programs to protect adolescence.

Also, according to the NASW code of ethics 5.02 (b) "Social workers should promote and facilitate evaluation and research to contribute to the development of knowledge." It is important for me as a Social Work Student to adhere to my ethical responsibility and engage in research in order to contribute to knowledge that can be used in Aruba to understand suicide among adolescents in Aruba.

Chapter II: Literature Review

Adolescence is a time of dramatic change in ones life. Becoming an adult can be complex and challenging. Adolescents may feel pressure to succeed at school, at home and in social groups. Adolescents can encounter very difficult situations in life. Sometimes they think that it is going to last forever. Suicide might be a solution to their problems or an end to their pain. Suicide affects the individual as well as their surroundings.

There are many theoretical perspectives that have sought to explain this social phenomena. In the literature review I will explore the views of the Durkheim Suicide theory that illustrates the reasons individuals attempt suicide. The literature review is positioned within developmental perspective and the systems theory is discussed. Furthermore, while looking from a psychosocial perspective the warning signs, risk and protective factors are discussed.

2.1 Durkheim Suicide Theory

One cannot study suicide without looking into the Durkheim Suicide Theory (1897). Durkheim was the first to argue that the causes of suicide were to be found in social factors and not individuals alone. He looked at the level to which people feel involved in the society and their social surroundings, and how these can be interpreted as potential factors for suicide attempt. He argued that suicide

rates are affected by the different social contexts in which they appear (Durkheim Suicide Theory, 1897).

Durkheim also distinguished between four types of suicide: Anomic Suicide, Altruistic Suicide, Egoistic Suicide, and Fatalistic suicide.

Anomic Suicide

Anomic suicide occurs when a person experiences anomie. The person feels a disconnection or a feeling of not belonging in the society which is a result of weakened social cohesion (Crossman, 2014). In such circumstances a person might feel so confused and disconnected that they choose to commit suicide. Teenage suicide is usually pointed out as an example of anomic suicide, due to the fact that suicide is often committed by those who have been sexually abused as children or whose parents are alcoholics (Anderson & Taylor, 2009).

Altruistic Suicide

Altruistic suicide happens when there is “excessive regulation of individuals by social forces, such that a person will be moved to kill themselves for the benefit of a cause or for society at large.” (Anderson & Taylor, 2009). This involves an individual that commits suicide, for the sake of a religious or political cause. Examples are: hijackers of the airplanes that crashed into the World Trade Center and the Pentagon on 9/11/01 (Anderson & Taylor, 2009). People who commit altruistic suicide lower themselves and accept that death is the result. “In such social circumstances, people are strongly integrated into social expectations and society that they will kill themselves in an effort to achieve collective goals” (Crossman, 2014).

Egoistic Suicide

Egoistic suicide happens when people feel totally detached from society. Usually, people are involved into

society by work roles, ties to family and community, and other social bonds (Anderson & Taylor, 2009). These bonds can break down through for example retirement or loss of family and friends. Then it is more likely for egoistic suicide to occur (Anderson & Taylor, 2009). Elderly people who lose these ties are the most vulnerable to egoistic suicide.

Fatalistic suicide

Fatalistic suicide occurs under conditions of extreme social regulation. “This results in oppressive conditions and a denial of the self and of agency” (Crossman, 2014). In such a situation a person may choose to die rather than continue living in the oppressive conditions (Crossman, 2014). Examples of fatalistic suicide are suicide among prisoners.

2.2 Ecological Systems Theory

In ‘An ecological understanding of youth suicide in South Korea (2010)’ the Ecological Systems Theory is used to understand the factors that contribute to the adolescent suicide. Although the majority of research is done in South Korea, it can be applicable in other societies around the world. According to Lee, Hong & Espelage, 2010, the Ecological Systems Theory holds that “an individual is part of inter-related systems (e.g. family, school) that expand to broader environmental contexts (e.g. neighborhood, culture) that affect individual attitudes and behaviors”. Developed by Urie Bronfenbrenner, the ecological systems theory posits that individuals can be situated within micro-, meso-, exo-, macro-, and chrono-system levels.”

Micro-system level

On the Micro-system level Lee, Hong and Espelage (2010) state that “the most immediate influences on youth suicidal behavior are within the microsystem level, which consists of individuals and groups of individuals with

whom the individual have interactions and contacts.” On the Micro-System level the factors that contribute to teenage suicide in are negative parental strategies such as harsh discipline and physical abuse, poor communication with parents, lack of peer support, negative peer relationships and those who are victimized at school, and academic stress.

Meso-system Level

Bronfenbrenner (as cited in Lee, Hong & Espelage, 2010) states that “a meso-system consists of the interrelationships between two or more microsystem in which the child is involved (e.g. the relationship between family and school).” According to Lee, Hong and Espelage the mesosystem is basically a system of micro-systems. Ra et al. (as cited in Lee, Hong & Espelage, 2010) “revealed in a sample of high school students that the risk of suicidal ideation was highest among those with poor relationships with their divorced parents, which was found to affect their relationships with their peers at school.”

Exo-System Level

The Exo-system is “composed of interactions between two or more settings, but the individual is embedded in only one” (Bronfenbrenner, 1994, as cited in Lee, Hong & Espelage, 2010). These are situations where youths are not directly involved in yet are still affected by these situations. Some examples include the mass media, suicide internet sites that support suicide.

Macro-System

The macro-system as referred by Bronfenbrenner (1944), is “the cultural blueprint that may determine the social structures and activities in the immediate system level.” One aspect of the marco-system is the parenting practices. Another aspect of the macro-system is the emphasis

on academic achievement. According to Lee, Hong and Espelage (2010), “within the extremely competitive educational environment, academic underachievement is considered as failure, leading to depression, anxiety, substance abuse, delinquency and suicide.”

Chrono-system

According to Lee, Hong and Espelage (2010), the chrono-system level consists of “change or consistency over time in the characteristics of the individual and the environment.” In this level they make a connection between certain historical event and the impacts that it can have in youth behaviors such as suicide.

2.3 Psychosocial Development

Warning Signs

Doan, LeBlanc, Roggenbaum, and Lazear, (2012) argued that there are several warning signs regarding suicide attempt. These are some the following: First, actually talking about suicide or a suicide plan. “Giving verbal hints with statements such as: “I won’t be a problem for you much longer,” “Nothing matters,” “It’s no use,” and “I won’t see you again” Saying other things like: “I’m going to kill myself,” “I wish I were dead,” or “I shouldn’t have been born.”” (Doan, LeBlanc, Roggenbaum, & Lazear, 2012).

Other warning signs are disengagement from friends and family, loss of interest in all pleasurable activities and in things one cares about. Furthermore, radical changes in eating and sleeping habits, personality change, and mood changes. Being constantly preoccupied with death and also giving away favorite possessions. One important warning sign is the person suddenly becoming cheerful after feeling depressed. This may indicate that the person has already made the decision to escape all problems by committing suicide (Doan, LeBlanc, Roggenbaum, & Lazear, 2012).

Risk Factors

Several studies have observed similarities in the possible causes of parasuicide among adolescents. "Parasuicide is a way of communicating and in most instances the behavior is used to get relief from stress, get back at others, or to show how desperate they are" (Hawton & James, 2007). The dominant factors seem to be Physical or Sexual Abuse and Depression. Other common problems that might lead to suicide attempt are the following: "school or work problems, difficulties with boyfriends or girlfriend, conflict with sibling, physical illness, difficulties or conflict with peers, depression, bullying, low self-esteem, sexual problems, and alcohol and drug abuse" (Hawton & James 2007).

There are also psychodynamic factors involved. These include factors related to the early emotional state of the child, the issue of denial, his role within the family, and any sexual challenges (Hawton & James 2007). As for the family factors include the issues of "loss of a parent, relationship problems, psychiatric disorder in a close relative, alcohol abuse or drug abuse in a parent, and extremes of parental control" (Hawton & James 2007).

On the other hand, Arun et al. (2005) points out that "all suicidal people are not death seekers." Some attempt to communicate pain, to lessen isolation, to avoid consequences of social status change, and to seek revenge. Other important risk factor in parasuicidal acts are low education, low socio-economic status, and unemployment (Arun et al., 2005). This view was shared by Crepet et al. (as cited in Arun et al. 2005)

Protective Factors

McLean, et al. (2008) has identified several protective factors regarding suicide attempt. Including, coping skills and problem-solving skills such as "self-

control and self-efficacy, instrumentality, social adjustment skills, positive future thinking and sublimation. Being in control of emotions, thoughts and behavior can mediate against suicide risk associated with sexual abuse among adolescents" (McLean, et al. 2008). Another protective factor is high levels of reasons for living, future orientation and optimism. Furthermore, a protective factor might be being actively involved in sports and healthy activities.

Family connectedness plays an important role regarding protective factors for suicide attempt, involving having a good and healthy relationship with parents. Further evidence suggests that "positive maternal coping strategies can have a protective effect on female adolescents." Children living at home and marriage are also protective factor against suicide. The "traditional social values may have a protective effect against suicidal behavior among adolescent girls, while individualistic values may have a protective effect among adolescent boys" (McLean, et al. 2008).

Supportive school environments, including access to healthcare professionals and access to treatment by a health professional may be protective against repeat suicide attempts. Also, "social support in general are important protective factors among adolescents including those who have experienced sexual abuse, those with learning disabilities and those who identify as lesbian, gay, bisexual or transgendered" (McLean, et al. 2008).

There is also a wide range of evidence to suggest that religious participation may be a protective factor against suicidal behavior. "Observance of traditional cultural rituals may have a stronger protective effect" (McLean, et al. 2008).

One study found that exposure to of suicidal of family, friends or in the media may be protective against nearly lethal suicide attempts. However, it is important to take noticed that there is also a large amount of evidence

that suggests that suicide risks are associated with media portrayal (McLean, et al. 2008).

The above studies indicates that there are different types of suicide and different reasons for committing suicide. For the purpose of this research, I would study the reasons for committing suicide, while also looking at the influences of the different systems that the individuals are placed in.

Chapter III: Research Methodology

3.1 Design Statement

A qualitative phenomenological design is used for the purpose of this research. The phenomenological design is aim to understand the causes of parasuicide among the adolescence by examining the views of respondents who have experienced this. This research is an explanatory research because it explains the social phenomena by answering the questions ‘what?’, ‘how?’ and ‘why?’” (Thompson & Hickey 2002, p.40).

3.2 Unit of Analysis

According to Thompson & Hickey (2002) sample is described as a “segment of the population”. The sample method for this research is purposive sampling, due to fact that I am studying a particular group. This particular group entails adolescence with experience of parasuicide. The sample size I choose for this research is between 3 to 5 respondents. The age category was initially between the ages of 15-25 years old. The reason for this is because according the Health Monitor Aruba (2013), in the year of 2010, the data shows that attempted suicide (parasuicide) was the highest amongst this particular age group. Since it was not easy to recruit participants in the beginning, I changed the criteria for participant who were between 15-19 or 20-39 with suicide experience in the past. The age group is also categorized according to the ‘Erikson’s Stages

of Psychosocial Development’ (Newman & Newman 2010). The first stage is ‘Adolescence (13–19 years)’ and the second stage is ‘Early adulthood (20–39 years)’.

3.3 Data Collection

Data was collected through semi-structured face-to-face interviews with respondents. It was very difficult to have service provider’s agencies to provide me with contact information of their clients. The recruitment of participants therefore was done through my personal social network. I made a list with guided questions to use during the interview and also a consent form. The themes of the guided questions were: personal information, suicide experience, suicide behavior enquiry, risk factors, protective factors, and recommendations. Once that list and the consent form were approved by my research coach, I scheduled an introduction meeting with participants. The purpose of the first introduction meeting was to discuss the consent form. Then, after the first meeting the participant and I set a time and a date for an in-depth interview. I made sure to create a surrounding that is safe and peaceful. The interview was held at a private meeting room at the University of Aruba. The interviews were recorded in Papiamento (with the permission from respondents) and I took notes as well in order to later transcribe all information that was mentioned during the interview. The interview had a duration of approximately 60-90 minutes. The respondents narrated their story from their own perspective and experiences. Since parasuicide is a sensitive topic, at the end of the interview, I asked the respondents to evaluate the interview by stating their opinion and emotions after the interview. This was important so that respondents could referred to a psychologists or psychiatrist if needed.

3.4 Data Analysis

The data gathered from the interviews was analyzed according to content analysis. Content analysis is “research that examines and analyses communication”

(Thompson & Hickey 2002, p.42). First, I transcribed and translated the audio data from Papiamentu to English. Second, I identified the main themes emerging from the narratives of the respondents. Last, in further analyzing the data, I compared and contrasted the experiences of the respondents with the literature and other similar studies.

Chapter IV: Preliminary Findings

The preliminary findings of this paper are based on 1 interview. I will answer my sub questions and subsequently my main research question.

What are the reasons adolescent attempt suicides in Aruba?

The reason to commit suicide was due to the fact that the respondent felt that there was *“no way out of all the problems”* the respondent believed by committing suicide all the problems would come to an end and will not have to suffer anymore.

What are the common warning signs of adolescence suicide attempt?

As for the warning signs the responded indicated a mood change. Respondent felt highly depressed. Respondent found it very difficult to escape from all personal problems. Respondent felt that nothing was going in the right direction. Responded felt a disengagement from friends and especially family. Respondent lost interest in all pleasurable activities. Respondent would rather stay lock up in her room. At some point the responded started to hear voices saying: *“Go ahead, kill yourself, nobody would care, nobody loves you”*. Respondent could not sleep at night, due overthinking about all the problems. The respondent’s personality was affected in a way that the self-esteem dropped completely.

What are the risk factors associated with parasuicides amongst adolescence?

As for the associated risk factors of the respondent included many negative parental strategies. The respondent was a victim of domestic violence at home. There were harsh punishments. The respondent had a very poor communication with mother and there was an absence of father figure at home. The biological father was also a drug addict. The respondent was a victim of child neglect. The respondent had a very low self-esteem, and suffered from depression. The respondent was a victim of bullying at school and there were no peer support.

What are the protective factors associated with parasuicides amongst adolescent?

As for the protective factors, the respondent had 1 friend at school who had given the respondent a sense of support. The respondent also joined a Catholic prayer group where the respondent felt a sense of belonging. The people in the prayer group were the biggest support and help the respondent to overcome depression.

Chapter V: Preliminary Conclusions

The main research question is: What are the main reasons adolescents attempt suicide in Aruba? It is difficult to answer this question and to draw a conclusion from my preliminary findings based on 1 interview. As for now, I can state that the preliminary results are very similar to what the literature indicates. It important to conduct more interviews in order to get a broader and richer results. The findings of this research will serve to make recommendations for the improvement of services and programs to protect adolescence and reduce suicide risks.

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Why did I sign up to join the UA-UCU Student Research Collaboration project? To have my name finally be published in a book. No, I'm joking. Although this is a good point to mention. My main reason was that I simply like to challenge myself. Since attending the University of Aruba I have been constantly challenged with difficult and excessive assignments, group projects and presentations among others. So why participate in another project while I'm busy working on my Thesis? I know it means more stressful days. But during my time as a student here I acquired many skills and expanded my academic experience. Thus, with joining the UA-UCU research project I hoped in achieving this too. I also wanted the chance to contribute something valuable to Aruba with my research.

Additionally, this program offered me the chance to meet new people from different backgrounds. The research they were conducting was very interesting and eye opening. It made me understand other important. Overall the

collaboration between us was great and making new friendships was a big plus. One of the greatest memories I have from this program was the orientation week. The boat trip and walk through the neighborhood Rancho made me realize some of the issues we face in Aruba making me more determined to do something about it.

Looking back now at what I have accomplished I can say that I am very satisfied and more interested than ever to hopefully expand my research in the future. Volunteerism is something I am very passionate about. I strongly believe one of the greatest gifts you can give someone is your time. The impact you make is highly valued.

Finally, I would like to sincerely thank my colleagues, professors, and everybody else involved who helped me with carrying out this research during the past three months. This has been a unique experience that I will forever cherish.

Volunteerism: an approach to encouraging more volunteering in Aruba

By Melany Lloccla

Introduction

Help is needed in many forms and volunteering is an example hereof. Volunteering can generally be described as a broad range of activities that benefit another person, group, or cause and that are carried out by individuals by their own choice and without pay (Bekkers, 2008). Some examples include preparing food in home shelters, a beach clean-up, or organizing an activity day for school children among others.

Volunteering is highly valued because it means working with others to make a meaningful contribution for a better community (Brummell, 2001). In Aruba, this is no different. Many organizations and groups look for individuals, both locals and tourists, who are willing to help with some activities and/or projects (ATA, 2017). Furthermore, Aruba has an annual volunteer event, ARUBA DOET, with more than a thousand volunteers who participate (ARUBA DOET, 2017). Thus, the goal is to stimulate everyone to help the community and social organizations on the island.

Therefore, it is highly important for organizations to communicate their messages adequately to acquire more potential volunteers (Clary & Snyder, 1999). This paper aims to address the promotion of volunteerism effectively and to support this, individuals' motives for wanting to participate or not participate as volunteers were researched. To help

with gaining more insight the following main question was formulated: *How to encourage more volunteering in Aruba?*

Literature Review

The following literature review serves as a theoretical base to help the researcher as well as the reader understand the nature of this research study. In this the main subjects related to the area of volunteerism and the current situation in Aruba are analyzed and summarized.

Volunteering

According to Wilson (2000) the term volunteering is described as any activity in which time is given freely to benefit another person, group or cause. It is part of a cluster of helping behaviors, entailing more commitment than spontaneous assistance but narrower in scope than the care provided to family and friends (Wilson, 2000). There are two distinctions made in volunteering: formal and informal. Formal volunteering is carried out in an organization, usually nonprofit organizations, while informal volunteering is not and it benefits specific individuals or groups with whom the volunteer has personal connections (Bekkers, 2008). In this case, formal volunteering is central to this research study. Furthermore, it was essential to understand the core principles which specifically identify formal volunteering. These principles are described in Table 1.

Principles of Volunteering
<ul style="list-style-type: none"> • Volunteering benefits the community and the volunteer; • Volunteer work is unpaid; • Volunteering is always a matter of choice; • Volunteering is not compulsorily undertaken to receive pensions or government allowances; • Volunteering is a legitimate way in which citizens can participate in the activities of their community; • Volunteering is a vehicle for individuals to address human, environmental and social needs; • Volunteering is an activity performed in the not-for-profit sector only; • Volunteering is not a substitute for paid work; • Volunteers do not replace paid workers nor constitute a threat to the job security of paid workers; • Volunteering respects the rights, dignity, and culture of others; • Volunteering promotes human rights and equality.

Table 1: Principles of Volunteering (2009)

Motivations for volunteering

According to Clary and Snyder (1999) understanding the motivations of volunteering raises two fundamental questions: Why do people decide in the first place, to engage in helpful activities as volunteers? And having decided to volunteer, why do people continue to serve, sometimes for months and even years? In answering these questions Clary and Snyder’s research identifies six personal and social functions served by volunteering which are; values, understanding, enhancement, career, social, and protective

(Clary & Snyder, 1999). These were the six main motives why individuals choose to volunteer in the first place which is further elaborated in the model Volunteering Functions Inventory shown in Table 2. Furthermore, the findings also point out that individuals not only have one but instead multiple motivations and goals. Concluding to this, the right approach is sending messages that best matches these motivations and goals and thus successfully recruiting volunteers (Clary & Snyder, 1999). This research will focus on testing this approach. Additionally, the motivations will be questioned using the Volunteering Functions Inventory.

Functions served by volunteering and their assessment on the Volunteer Functions Inventory (VFI)		
Function	Conceptual Definition	Sample VFI item
Values	The individual volunteers in order to express or act on important values like humanitarianism.	I feel it is important to help others.
Understanding	The volunteer is seeking to learn more about the world or exercise skills that are often unused.	Volunteering lets me learn through direct, hands-on experience.
Enhancement	One can grow and develop psychologically through volunteer activities.	Volunteering makes me feel better about myself.
Career	The volunteer has the goal of gaining career-related experience through volunteer activities.	Volunteering can help me to get my foot in the door at a place where I would like to work.
Social	Volunteering allows and individual to strengthen his or her social relationships.	People I know share an interest in community service.
Protective	The individual uses volunteering to reduce negative feelings, such as guilt, or to address personal problems.	Volunteering is a good escape from my own troubles.

Table 2: VFI (Clary & Snyder, 1999)

ARUBA DOET

ARUBA DOET was first introduced by Oranje Fonds¹ and CEDE ARUBA² in 2013 and since then became one of the biggest volunteer events on the island

¹ Oranje Fonds is a foundation in the area of social welfare in the Kingdom of the Netherlands that aims to support social cohesion and promotes participation in society (Oranje Fonds, n.d.).

² CEDE Aruba (Centro pa Desaroyo di Aruba) promotes bringing people and resources together for a sustainable development in Aruba (CEDE Aruba, 2017).

(ARUBA DOET, 2017). Each year this two-day event is held, not only in Aruba but also in the Netherlands and four other Caribbean islands, where individuals get the opportunity to sign up as volunteers for different projects by organizations who need help. The ultimate goal is focused on the volunteers, more specifically acquiring new volunteers, and promoting the importance of volunteering (Tecklenborg & Wever, 2017). This research is partially based on ARUBA DOET since it is a large and well-known event focused on volunteerism.

Volunteering in Aruba

Based on the ARUBA DOET event each year there is a clear increase in volunteers. It started in 2013 with approximately 1000 volunteers and grew to 3600 volunteers in 2017 (Tecklenborg & Wever, 2017). This proves how well the community is contributing to Aruba as volunteers. However, it is important to keep track of those that are not active volunteers and who have not participated in ARUBA DOET yet. There is insufficient information regarding volunteer statistics by Central Bureau of Statistics (2012) and currently only the numbers of volunteers of ARUBA DOET provide a small insight (Tecklenborg & Wever, 2017). Therefore, it makes this research relevant and can be the beginning for further researches on this topic.

Methodology

Qualitative method as interview and focus group were used to help with answering the main research question. First of all, it was important to gather more information of ARUBA DOET and how to promote such activities and/or events. This could be acquired by interviewing someone who hold this knowledge than through desk research. Interview explores the underlying reasons, opinions, and motivations. It gives the chance for the interviewee to explain and build their answers and provide any extra information (Saunders, Lewis, & Thornhill, 2016). Secondly, to identify and understand the motives for volunteering focus group was the best choice in this case. A focus group provides the chance for detailed information, it saves more time and there is synergy among the participants as they build on each other's comments and ideas (QRCA, 2017). Thus, two interviews and one focus group were held and recorded to retain the information provided from these.

Interview

A semi-structured interview was first chosen as the qualitative method to gather more insight of ARUBA

DOET and promoting of volunteering. The first interview took place at the office of CEDE

Aruba with the director and project coordinator. A list of ten questions were formulated with the focus addressing the goal of Aruba DOET, project development, how ARUBA DOET is promoted and future plans for the event. The second interview that took place was with the team of the digital marketing agency Expandeer. This interview also consisted of ten questions and the goal was to gather recommendations for promoting volunteering and ARUBA DOET. Additionally, the motivations for volunteering of the Expandeer team were also asked.

Focus group

Following the interviews, a focus group was held among four university students in their 20's, two females and two males. The group consisted of both active and non-active volunteers. It should also be noted that only one participant volunteered one time in ARUBA DOET. The participants were gathered through mutual connections with the researcher and based on their availability. These students were informed beforehand of the goal of the focus group. Location was set at the University of Aruba during the morning hours and lasted 35 minutes. To obtain the main result, this focus group was based on four main points; their previous volunteer work, their motivations based on the Volunteer Functions Inventory model, their knowledge about ARUBA DOET, and suggestions on how they would promote volunteering.

Results

As previously mentioned, ARUBA DOET focuses on promoting the importance of volunteering and trying to acquire each year new volunteers for the event. It relies on social media such as Facebook and free publicity to achieve this (Tecklenborg & Wever, 2017). Word-of-mouth

also played a big role. Furthermore, the organizations participating are also constantly encouraged to promote it themselves as much as possible. As for the website of ARUBA DOET, there were some issues reported by individuals when signing up as volunteers. Nevertheless, ARUBA DOET managed to become a big event on the island with this year 30% new volunteers joining and a total of 199 projects to help with (Tecklenborg & Wever, 2017). Moreover, the 2017 Response Survey provided by Tecklenborg and Wever (2017) displays a mass number of satisfied volunteers and organizations very likely to participate next year and recommend it to others. However, Expandeer (2017) recommends, not only to ARUBA DOET but all organizations, to provide slightly more information in their messages and communicate this more personally.

As for the findings from the focus group, the respondents chose the functions values and understanding as their top motives for volunteering. This positively aligns with the

research from Clary and Snyder (1999) which delivered the same results. Moreover, it complies with the principles of volunteering. Overall, respondents expressed a high interest in intending to volunteer and they are open to anything since they see the contribution as valuable (Focus Group, 2017). However, primarily due to lack of information respondents could not help out. For example, in the case of ARUBA DOET respondents were not fully aware on what exactly the event was about. One of the ads (Figure 1) displayed during the focus group session did not convince them sufficiently to sign up as volunteers. For the respondents, more information is essential on the projects and what exactly is expected from them before visiting the website itself to find this out.

The findings from the interview with Expandeer and the focus group also point out that normally people would first choose an organization they have a connection to. For example, one of the interviewees is more likely to be to volunteer at the school her kid is attending. Furthermore, busy schedules are also reported as a slight issue.



Figure 1: ARUBA DOET ad (Facebook, 2017)

Conclusion

The study aimed to answer the research question on how to encourage more volunteering in Aruba. Based on the interviews and focus group there is a tremendous amount of active volunteers in ARUBA DOET and a high interest in volunteering. It proves that the current promotional activities of volunteering are positively working. However, to encourage more volunteering only small changes are needed.

As previously stated, due to lack of information, respondents were not motivated enough to volunteer. It is important to incorporate persuasive messages matching their motivations (Clary & Snyder, 1999) and speaking to the individual more personally (Expandeer, 2017). These messages should be more than the basic and highlight how easy it is to sign up, the possible skills to gain, networking opportunities and most importantly the value of contribution. Overall, it is important to focus on the experience of volunteering and making sure the volunteers feel important (Pauley, n.d.). Encouraging individuals to give their time to those in need can make a big difference in Aruba.

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As I flew over the Caribbean Sea I expected it would be difficult to balance work and pleasure. The thought of finishing my Master's looming over my head. I landed, and was fortunate to find pleasure in my research. Discovering the island's beauty whilst learning about its complexities. It has allowed me to be both a tourist and a local. The kindness and help I received from all Arubans I encountered. As I delved into the world of multilingualism I was profoundly impressed by Arubans fluidity in their language use. I cannot thank the students and teachers enough that took the time and care to help me.

The beaches, the fish, the unlimited laughter and giant Venezuelan avocados are but a few of the pleasures I embraced. I can't thank Ben, Louisa and Will enough for their constant support, dinners and banter. Although fighting against the academic clock, I managed to squeeze in some Aruban culture. From the Carnival parade in Oranjestad, to calypso events in San Nicolas and the unforgettable Jouve morning, Aruba's many beautiful colours have left an impression on me.

The beautiful setting of the university made work easier. Niels' sandwich shack and Rancho's fruteria softened the stress and the time constraints which all of us faced. Colombian spiced rice sat next to creole fish and plantains was out of this world. Although my Papiamentu isn't as perfected as I've hoped this hasn't stopped me from meeting incredible Arubans. They have all showed me their personal happy island. To all the UA students in the UAUCU program, I respect the work ethic, effort and care they showed in their studies and research.

To Eric, Jocelyn, Régine and Kitty, I cannot thank you enough for your guidance and support. To my incredible aunt, Flora, for visiting me and taking care of me in my most stressful time of need. Her delicious late night fruit smoothies gave me strength to re-edit for the umpteenth time. As my Master's comes to a close, I have reflected upon my experiences and decisions that have brought me to this moment in my life. I couldn't have wished for a better place to do so than on beautiful Aruba.

A mixed method comparison of students' perception of language use and the reported practice

by Zita Ngizwenayo

1. Introduction

Previous research on multilingualism and language learning in Aruba has often focused on reporting motivation and attitude towards languages without demonstrating the complexity behind these attitudes and the way they are constructed. This research aims at exploring instrumental motivation in a multilingual context.

Aruba, like many Caribbean islands, consists of a multilingual and multicultural population that has been created by centuries of contact between people from diverse cultural and linguistic backgrounds. Being part of the Kingdom of the Netherlands, Aruba has two official languages: Dutch and Papiamentu. According to the Central Bureau of Statistics, the majority of the population speaks Papiamentu at home (69%), followed by Spanish (14%), English (7%) and Dutch (6%). The remaining 4% of the population speaks other languages at home like Portuguese, Chinese, French or English lexifier Creoles (CBS, 2011).

The aforementioned research has shown that Arubans have positive attitudes towards multilingualism (Leuverink, 2011; Kester & van de Linde, 2015). While only Dutch and Papiamentu hold an official status in Aruba, speaking more than one language is generally accepted and is even seen as an advantage. Arubans indicated that

being multilingual offered more job opportunities and moreover all four languages are accepted in the school and work environment. English and Dutch were perceived to be most important for instrumental purposes like obtaining employment and following education. However, highly educated (footnote to explain) Arubans reported that they mostly spoke Papiamentu at work (43,7%), followed by Dutch (32,5%), English (19%) and lastly Spanish (0.8%) (Leuverink, 2011). Although, little research has been conducted on the language use in the different work fields in Aruba, it is nonetheless important to know the linguistic requirements in the work field of a multilingual society such as Aruba to create a fitting educational curriculum. This curriculum should reflect and fit the language requirements of the students, which would prepare them for successful participation in the Aruban workforce.

A fitting curriculum is not enough to ensure student achievement, as motivation plays a crucial role (Dornyei, 1998). R.C. Gardner, the author of *Attitudes And Motivation in Second Language Learning*, suggested that learning a second language does not only depend on a learners aptitude or their ability to acquire proficiency in multiple languages. He stated that it is important to consider the learner's cultural context which influence attitudes and motivations towards culturally distinct languages and that in turn drive the learner in languages learning.

Gardner defined motivation as a “combination of effort plus desire to achieve the goal of learning the language plus favourable attitudes towards learning the language”. In his *Socio-educational Model*, Gardner differentiates two types of motivation in language learning: *integrative motivation*, which refers to a language learners’ desire to communicate or integrate with the members of the target language and *instrumental motivation*, which refers to functional reasons a language learner might have to learn a language like getting a job, acquiring a high salary or passing examination (Gardner, 1985).

As stated earlier, previous research on language use and attitudes in Aruba has shown that Arubans generally perceive English and Dutch to be important for instrumental purposes while Papiamentu serves more for integrative purposes indicating different motives to learn these languages (Leuverink, 2011; Kester & van de Linde, 2015; Vasić, 2016). Within this approach on motivation in language learning, the goal reporting language attitudes and motivation and less on explaining them. Also, it is less applicable to the multilingual society that is Aruba. For example, Dutch is a foreign language for the majority of the population (Mijts, 2006) as it is only spoken by 6% of the population at home and rarely heard outside of specific spheres such as the educational or legal domain. The Dutch language therefore is seen in an exam-oriented educational context where the aspect of desiring to integrate or communicate with members of the target language is less prevalent. So it is quite logical that most Arubans perceive the Dutch language as being less important for integrative functions than Papiamentu, which is spoken by the majority of the population. This does not mean, however that Arubans do not feel the desire to communicate or integrate with members from the Dutch community, it just means that in the context that they are in (being a part of the Dutch Antilles, having a Dutch education system etc) learning Dutch serves for mostly instrumental purposes.

Although there is research on language attitudes and language learning motivation in Aruba, it is often aimed at creating a solution for the language policy problem in education. However, research aiming at demonstrating the way these attitudes are constructed has not yet been conducted in a complex multilingual society like Aruba.

Not only is it important to study what Aruban students’ attitudes and perceptions are but it is also vital to understand how they construct these attitudes and perceptions towards languages as this influences their language learning through motivation. From prior research, it transpires that the instrumental functions of a language appear to be one of the key factors for language choice in education. Additionally, as stated before, the focus on instrumental function through questionnaires alone is not sufficient to demonstrate the complexity of the situation in a multilingual context like that of Aruba.

The aim of this research is to explore the perception of language use in professional settings by Aruban youth and if this is in line with the reported practice of individuals in the Aruban workforce. This paper investigates what young Aruban students from different school levels perceive on the language use in professional settings, if they are in line with reality. In doing so, this research will also explore how Aruban students construct these perceptions. The participants in this research will be students from different periods of secondary education. In accordance to this research aim, the following research question has been formulated:

To what extent is the students’ perception of language use in professional settings in line with the reported language use?

In order to address this research question, three sub questions were formulated:

1. What is the perception of language use in professional settings by students in *ciclo basico*¹ and in the fourth year of secondary school?
2. What is the perception of language use in professional settings by students in the academic foundation year at the University of Aruba?
3. What is the actual reported practice with respect to language use in a selection of professional settings in Aruba?

2. Literature review

This chapter will briefly discuss the Socio-educational Model as discussed in the introduction and its limitations. Additionally, the linguistic background of Aruba as well as its education system will be described.

2.1 Socio-educational Model

As explained in the introduction, the *Socio-educational Model* refers to a model by Gardner (1985) to describe motivation in language learning. This model categorises motivation in Integrative and Instrumental motivation. In 1995, Pennycook criticized the *Socio-educational Model* for it did not encompass the social and political dimensions in foreign language learning. He stated:

“...we cannot reduce questions of language to such social psychological notions as instrumental and integrative motivation, but must account for the extent to which language is embedded in social, economic and political struggles” (Pennycook, 1995, p.41)

Additionally, Liebscher & Dailey (2009) argued that the approach taken in attitude measuring using psychometric

¹ Ciclo basico is the term for the two-year transitional phase from primary to secondary education

questionnaires focuses on the psychological phenomena as observed in vitro situations and does not consider the cultural ideologies and social environments that create these phenomena. In the case of Aruba, not only is it important to know which language(s) is/are perceived to be important for instrumental or integrative purposes but also where these perceptions come from, how they are constructed and if they match reality.

A study conducted on Japanese college students used a constructionist psychological framework to demonstrate how discourses intermediated in the construction of language attitudes (Saito, 2014). Saito demonstrated how Japanese youths' language attitudes towards English were constructed in the social and political settings of the culture they were part of. Numerous factors like “their position in the cultural context, their past, present, and future images of self and their alignment with socially induced ways of thinking about English” influenced their construction of language attitudes (2014).

2.2 Linguistic background of Aruba

The island of Aruba became multilingual through influences from colonialism, tourism, migration. The first inhabitants of the island were Arawaks. The languages that were spoken by Arawaks and other native tribes have almost no influence on the current linguistic situation in Aruba now (Alofs & Merckies, 2001). The first Europeans arrived in the beginning of the 16th centuries in Aruba and brought the Spanish language to the island which is still very present today. Aruba was under the Spanish authority till 1634, before it became a Dutch colony in 1636 (Martinus, 2004, p. 3). Dutch was and still is the official language in Aruba.

Papiamentu is said to have originated from the Afro-Portuguese Creole that was used as a lingua franca during the slave trade in West Africa and was later introduced from Curacao to Aruba in the 18th century. The origin

of Papiamentu has been greatly debated and will not be discussed further in this paper. In the 19th century, Papiamentu became a dominant language within the Aruban social community. Despite the increased use of Papiamentu, the Dutch language became the only educational language in 1819. Colonial authorities believed that everyone on the island should speak Dutch and that the way to achieve this goal was through education, even though the Aruban children had little knowledge of Dutch (Alofs, 2008). Papiamentu gained formal recognition when given its official orthography in 1976 and became an official language in Aruba in 2003. Despite the fact that Dutch and Papiamentu are now the two official languages of Aruba by law, in practice the Dutch language can be found in formal domains like schools, the government and in the Aruban judiciary system while Papiamentu is often excluded from these areas. Outside of the formal domains, the Dutch language is rarely heard or used, making it a foreign language for 94% of the population (Mijts, 2006).

Due to many factors like tourism, the economy and migration, Dutch and Papiamentu are not the only dominant languages in Aruba. From the 1920's until the 1980's, the main source of income for Aruba was the oil refinery in San Nicolas. The American owned refinery attracted workers from other Caribbean islands, but also Americans, South Americans and Europeans. Consequently, different forms of English and Spanish were introduced to the island. After the closing of the refinery in 1984 the main source of income for the island became tourism. The tourism industry attracted mostly tourists from the United States and workers from South America.

The island of Aruba has seen an increase of the Papiamentu, Spanish and English speaking population, with the biggest growth coming from the Spanish speaking population. Spanish has now become the second most spoken language on the island with more than 11.000 people that speak it as a home language (14% of the Aruban population).

However, a recent study on the linguistic landscape of Aruba indicated that Spanish was the least used language from all dominant languages, suggesting that Spanish has a low prestige in Aruba and is only used at home and around friend groups (Bamberger, 2016).

Previous research by Leuverink (2011) stated that Arubans are very positive towards the multilingualism in Aruba and would not exclude any of the four dominant languages. According to the Central Bureau of Statistics, 60% of the native Aruban population speaks at least four languages to some degree (CBS, 2002).

2.3 Education system in Aruba

The current education system is based on the Dutch education system with some differences that were implemented in 1980. All children in Aruba are obligated to go to school from the age of four till the age of 16. The language of instruction in kindergarten is Papiamentu. Apart from a select few that speak Dutch at home, most children in Aruba have little knowledge of Dutch at the moment they enter the school system. After two years of kindergarten, the children go to primary education (1st grade), where Dutch is the main language of instruction and taught as a mother tongue despite the disadvantages this may have for the educational development of Aruban children (Dijkhoff and Pereira, 2010, p. 238).

English is taught as a subject and remains obligatory in the curriculum from the 6th grade on. After six years of primary education, students between the age of 12 and 14-15 enter a two-year transitional phase called "Ciclo Basico" where they are introduced to Spanish as a subject (Dijkhof & Pereira, 2010, p. 238). The transitional phase to secondary school is comparable to a middle school concept and was created to provide a common basic curriculum for students between the age of 12 and 14-15 instead of the 6th grade tests that separates students into academic and vocational tracks of secondary education.

After *Ciclo Basico*, the students are divided into four tracks: an integrated system of lower level technical and vocational education (EPB), a theoretically oriented preparatory course to either middle level professional education (MAVO), higher professional education (HAVO) or university (VWO). Throughout primary and secondary school, the language of instruction is mostly Dutch with the exception of two pilot primary schools that have started a multilingual education program (Proyecto Scol Multilingual) and some schools that have introduced Papiamento as a language of instruction (EPB level 3). English is taught as an obligatory subject throughout primary and secondary education, whereas Papiamento and Spanish are taught as subjects in secondary school.

Students that finish EPB and MAVO have the choice to go to Higher Vocational Education (EPI) where they can choose between studies that are taught in either Dutch or English. The students from EPB, MAVO and HAVO can also choose to move up a level if they meet the requirements. After HAVO and VWO, students have the option to pursue higher education, either in Aruba or abroad (www.ea.aw). As officially Dutch citizens, Aruban students have the option to study in the Netherlands, where they receive government funding (now in the form of a loan) which is often used as an argument for the importance of Dutch as the language of instruction.

3. Methodology

This chapter will describe the explorative research that was conducted to compare perceptions of students on language use in professional settings with the actual reported use. Mixed method quantitative and qualitative research was conducted using a survey and focus groups. This is a method to gather data where the strengths of quantitative and qualitative research methods are combined (Dörnyei, 2007).

3.1 Participants

Survey

A total of 98 students filled out the survey. The general characteristics of the participants are shown in table 1. Participants reported that they spoke Papiamento at home (n=81), followed by English (n=38), Spanish (n=37) and Dutch (n=22). Participants were able to report multiple languages. The survey was distributed at Colegio Arubano (VWO) (n= 21), San Augustinus (MAVO) (n= 49) and La Salle College (MAVO) (n= 28).

Table 1. General characteristics of survey participants

Age		Sex		Level of education		Year of education	
12	3%	Male	54,5%	MAVO	77,8%	1st	13,1%
13	17,2%	Female	44,4%	VWO	21,2%	Year	
14	14,2%					2nd	25,3%
15	15,2%					Year	
16	26,3%					4th	60,6%
17	17,2%					Year	
18	2%						
19	3%						
20	1%						

Focus group 1 and 2 (Aruban professionals)

Participants working in various work fields in Aruba were represented in two focus groups. The general characteristics of the participants of focus group 1 and 2 are shown in table 2. The participants were selected using the snowball effect. For the professions that are mentioned in the survey that might be hard to reach for an interview in a focus group, participants were selected that could report on the language use within those professions. For example, the law intern could report on the language use of lawyers in Aruba.

Table 2. General characteristics of professionals in focus group 1 and 2.

Professionals focus group 1	Gender	Level of education	Occupation
P1	Female	MAVO/HAVO/ University of Aruba (Marketing)	Marketing Intern
P2	Female	VWO/University of Aruba (Accountancy and finance)	Business Administration
P3	Female	VWO/ University of Aruba (Master of law)	Law Intern
Professionals focus group 2			
P4	Male	MAVO/HAVO	Airport Traffic controller
P5	Female	University of Aruba (Master in law)	Police officer
P6	Female	University of Aruba (Social work)	Social worker Intern
P7	Male	MAVO/HAVO	Air navigation services

Focus group 3 (Academic foundation year students)

5 students of the academic foundation year at the university of Aruba were asked to participate in a focus group. The general characteristics of the academic foundation year students are shown in table 3. These students were either recent graduates of secondary school or the EPI and are now participating in an academic foundation year that prepares them for higher education. These students were chosen because of their different educational background and as (recent) graduates of secondary school, they complement the survey data by providing qualitative aspects.

Table 3. General characteristics of students from focus group 3

Students focus group 3	Gender	Level of education
P8	Male	MAVO/EPI 3
P9	Female	MAVO/EPI 3
P10	Female	HAVO
P11	Female	MAVO/HAVO
P12	Female	VWO

3.2 Materials

The structured survey for this research was translated into the four dominant languages (Appendix 1). The first 10 questions consisted of background questions like age, level of education, language use at home and language proficiency in the four dominant language. The students could indicate from on a scale of one to three how confident they felt about talking, writing, reading and listening in Papiamentu, Spanish, English and Dutch.

Q11 examined the perceived importance of the four dominant languages for Aruba in general on a scale of one to 10. Q12 examined the importance of the languages for instrumental and integrative functions. The students could indicate which language was “1=most important, 2= 2nd most important, 3=3rd most important and 4=least important” for “making friends” (Integrative), “Earning money & getting a job” (Instrumental), “Passing tests” (Instrumental), ‘Living in Aruba’ (Integrative), “Pursuing higher education (after high school)” (Instrumental). These questions were based on the questionnaire about language attitudes and use in a study in St. Eustatius (Mijts et al., 2013).

Q13 asked the students to indicate the importance the four dominant languages to study or to get training in Aruba on a scale of one to 10. Q14 asked the students to indicate the order of importance for the four dominant languages

to study or to get training in Aruba as follows: “1=most important, 2= 2nd most important, 3=3rd most important and 4=least important” for 10 specific professions. The ten professions were selected based on the information from the Central Bureau of Statistics (2007) on the employed population by branch of industry in Aruba: a sales person, a chef in a restaurant, a general practitioner, an administrative assistant, a police officer, a teacher, a front desk officer, a lawyer, a construction manager and a social worker. The selected professions represent high and low position jobs. These jobs require a form of training or studying, from lower vocational level to higher education. This was to investigate if students differentiated in the importance of languages for different levels of education and/or professions. The professions are also relevant and familiar to the Aruban students.

Q15 asked the students to indicate the importance of the four languages for their future job on a scale of one to 10 while Q16 asked the students to rate the importance of the four languages on the work floor of the previously mentioned 10 professions. The work floor was defined in the questionnaire as every form of communication involved: for example, with clients, patients, students, colleagues or to send emails, answer phone calls etc.

The students had the option to indicate on Q17 if any other languages were important to Aruba according to them and the reason they felt so. Lastly, participants were allowed to state an idea or tip for the research if they had any on Q17.

The Q14 and Q16 were assessed individually because it was considered that a study or training for a profession is available in a certain language while the actual practice of that profession involves other languages. For example, to study medicine to become a general practitioner, Aruban students might need to go to the Netherlands and study in Dutch, while a general practitioner in Aruba might have to speak to patients in any of the four dominant languages.

The data gathered from the questionnaire were analysed using SPSS.

3.3 Procedure

To conduct the survey, the researcher first scheduled an appointment with directors and teachers at the secondary schools to talk about the aim of the research, to demonstrate the survey and to ask permission to conduct the research among their students. Before the survey was distributed, a pilot study was done with 10 students at La Salle (MAVO) in Oranjestad. Afterwards, the survey was modified. The survey was reduced to 17 questions structured in tables instead of separate questions. Afterwards, the survey was distributed in the available first, second or fourth year class of the participating schools. The students were explained that the survey was part of a research for a master thesis and that the aim was to investigate what languages are important in professions settings according to the students. The students were also told that they were allowed to fill out the survey in any of the 4 languages they felt most comfortable in. The students were told that the survey would take 10 minutes to answer and that it was completely anonymous.

Focus group 3 was held at the University of Aruba. The students of the academic foundation year were told that the purpose of the focus group was to investigate the perception of language use in professional settings among students. They were also told that a questionnaire was distributed among secondary school students and that some preliminary results would be presented to them to examine if they were in line with their perceptions. Subsequently, the students were asked to introduce themselves and their language use. The students were also asked to indicate their language proficiency and the language education they had in secondary school and their experience with that. Furthermore, the students were asked to indicate what languages are needed in

professional settings in different domains and in the domains they plan on working in. Some preliminary results of the survey were presented to the students to see if it corresponded with their perceptions.

Focus group 1 and 2 with the professionals were conducted at the University of Aruba. The researcher introduced herself and explained the aim of the research to the participants (to investigate the language use at their work). The aim of these focus groups was to compare their reported language use with the perception of language use in professional settings, that secondary school students have. Participants of these focus groups were also asked if the education or training they had prepared them for the languages they need and use at their work. The focus groups were held in English. Both focus groups lasted 1 hour and approximately 15 minutes.

4. Results

This chapter will present the results from the survey and the focus groups. First, the quantitative results of the survey will be discussed providing an answer to the first sub question. Secondly, the results of the focus group with academic foundation year students will be reported providing an answer to the second sub question. The results from the focus groups with Aruban professionals will be discussed to provide an answer to sub question three. Lastly, the main research question will be answered.

No extreme outliers were found. All analyses were tested using a two-sided alpha-level of .05.

A comparison of the survey results from the students in the *ciclo basico* and fourth year of secondary school was made using an independent sample t-test to compare the scores on perception of language use on the 'work floor' in Aruba. To compare the results of the perceived importance of the four dominant languages to study/get training for certain professions with the importance of these languages on the

'work floor' of said professions a paired sample t-test was conducted.

4.1 Perception of language use in professional settings

This paragraph will answer sub question 1. What is the perception of language use in professional settings by students in *ciclo basico* and in the fourth year of secondary school?

Initially, the students were asked to rate the importance of the four dominant languages for Aruba in general. English was perceived as being the most important language for Aruba in general (M=9.04 SD=1.39) followed by Dutch (M=8.57 SD=1.85), Papiamento (M=8.18 SD=2.55) and Spanish (M=6.78 SD=2.39). Results show that Papiamento is perceived as being the most important language for integrative functions such as making friends and living in Aruba. English was ranked the most important language to earn money and obtain employment in Aruba, both of which are instrumental functions. Dutch was ranked the most important language required to pass examinations and pursue higher education, these are both instrumental functions. Spanish was generally ranked third or fourth for all the aforementioned situations. Table 4 presents the means and standard deviations.

Table 4. Importance of languages in different domains. Means and standard deviations.

	Papiamento mean (SD)	Spanish	English	Dutch	Most important
Making friends	1.4 (.83)	3.23(.83)	2.1 (.78)	3.22 (.77)	Papiamento
Earning money & getting a job	2.87 (1.14)	3.11 (.97)	1.73 (.93)	2.28 (.95)	English
Passing tests	3.44 (.76)	3.17(.70)	2.15 (.66)	1.24 (.69)	Dutch
Living in Aruba	1.19 (.67)	3.38 (.82)	2.67 (.84)	2.70(.78)	Papiamento
Pursuing higher education	3.54 (.86)	3.07(.60)	1.95 (.77)	1.4 (.64)	Dutch

Due to the fact that the importance of each of the four dominant languages seemed to correlate for all 10 professions ($\alpha >.75$), the scores for the importance of the languages for all professions were grouped together. As such, a mean score was formed for ‘importance of Papiamento on the work floor’, ‘importance of Spanish on the work floor’, ‘importance of English on the work floor’ and ‘importance of Dutch on the work floor’. From this grouping, English was perceived to be the most important language on the work floor followed by Dutch, Papiamento and lastly Spanish. A significant difference was found for the perceived importance of Dutch on the work floor between students from *ciclo basico* (M=2.17 SD=.608) and fourth year students (M=2.43 SD=.51) $t(96) = -2,227, p=.036, d= .46$. Students from *ciclo basico* rated the importance of Dutch on the work floor higher than fourth year students. The size of this difference was small to medium. The reliability, means and standard deviations are presented in table 5

Table 5. Reliability, means and standard deviations for Importance of Papiamento, Spanish, English and Dutch on the work floor.

	Reliability α	Mean (SD)	P (difference ciclo basico vs 4 th year)
Importance of Papiamento on the work floor	.88	2.5 (.85)	.30
Importance of Spanish on the work floor	.89	3.01 (.64)	.89
Importance of English on the work floor	.87	2.15 (.65)	.95
Importance of Dutch on the work floor	.78	2.33 (.56)	.03*

*significant $p < .05$

A significant difference was also found between the perceived importance of Spanish and English to study or get training in Aruba and the importance of Spanish and English on the work floor. Students perceived Spanish to be less important to study or get training Aruba (M=3.10 SD=.52) then to work in Aruba (M=3.02 SD=.64) $t(97)$

= -2,289, $p=.024$. Students also perceived English more important to study in Aruba (M=2.06 SD=.60) then to work in Aruba (M=2.1 SD=.64) $t(97) = -2,295, p=.036$.

4.2 Perception of language use in professional settings by academic foundation year students

The results from the questionnaire were generally confirmed by the students from the academic foundation year, a bridge year between secondary and higher education. Dutch and English were perceived to be very important languages to study, get training and especially work in Aruba. One student (P12) stated that Dutch is especially important in the legal, educational and the medical field.

Furthermore, students discussed whether the use of Dutch would only be needed for written communication or verbal communication as well. The following extract demonstrates how the students associate the use of Dutch with higher level professions, while English is generally associated with tourism and Papiamento with communication between co-workers:

Researcher: do you expect to actually talk in Dutch or just use it for paperwork?

P12: paperwork

P9: I think talk and paperwork.

P10: talk? really?

P12: no but I see co-workers always talk in Papiamento

P9: yes, in Papiamento but..

P10: It's the paperwork like you see in a law firm..

P8: If I can give an example, if you are like a manager or like a boss, you need to be able to speak in Dutch..

P9: yes

P8: because you will get a lot of appointments with big people that come from the Netherlands

P9: yes, that is what I was thinking

P8: so you need to talk Dutch and English fluently, because some people come from the United States as well

P9: you have to be representative

[...]

P8: If you just want to be a co-worker then Dutch for paperwork is fine

P9: Yes

Z: but the higher up you go the more Dutch you need?

P8: Yes

Z: is that what you guys think as well?

P10: Yes of course, but I think Aruba is such a unique place because in tourism Dutch won't really help you because it is most likely English so it depends on which sector you want to work in.

Despite making this distinction when talking about language at different professional levels, the students reported that they expect to need all four languages for their future job. In the case of the student that is an aspiring nurse, she stated: *“if I come back here I will need all languages and I need to work on my Spanish as well because if you have [...] you are going to have clients that don't speak Dutch so it is always a pro to speak all 4 languages.”* (P10). This demonstrates an instrumental motivation for all four languages.

The academic foundation year students also stated that they have difficulties communicating and writing in Spanish although they had education in Spanish throughout their primary and secondary education until it became an elective. The students seem to find Spanish important to communicate with Spanish speaking people in Aruba, but not for the work field. One student (P8) believed that the only reason he got Spanish in education was because of the proximity to Latin American countries and that it is only helpful to speak with Spanish speaking people in Aruba and with tourists. *“I would say Spanish is not as important as English and Dutch because English you get at more places you go so Spanish is just a small side of the countries speaking Spanish...”* (P8) *“Business wise, no (P11)”*.

When asked how important Papiamento would be for their future job, a participant expressed that Papiamento is important because of the cultural value it has as a native language, while another participant added: *“But business wise, professional wise you won't use it...”* (P11).

4.3 The reported practice with respect to language use in professional settings

Verbal communication

The findings of the focus groups indicate that all four dominant languages are used for different purposes in Aruba. A distinction was made between written and verbal communication. Also, participants reported on speaking different languages with colleagues, clients and patients. Besides participant (P3) all participants of focus group 1 and 2 spoke mostly Papiamento at home. Participant (P3) stated that she is a native Dutch speaker but she mostly speaks Papiamento with her friends. All other participants reported that they felt most comfortable when speaking Papiamento.

The majority of the participants of focus group 1 and 2 reported that they use Papiamento in verbal communication

with their colleagues. The law intern (P3) stated that verbal communication with colleagues is *“mostly Dutch but we sometimes switch to Papiamentu, so its Dutch and Papiamentu [...] I would say 80% Dutch, 15 % Papiamentu and 5% in English.”* (P3). She also reported that in recent years she has started to improve her Spanish because of the many Venezuelan clients at her law firm. The police officer (P5) stated that she strictly speaks Papiamentu with her colleagues because of the pride she has for the language *“we are in Aruba and they introduced Papiamentu as a language for us here on Aruba so we have to...”* (P5) *“Be proud”* (P4). However, the participant also mentioned that she speaks Spanish during her work as a police officer due to the many Spanish speaking people in Aruba. The administrative assistant stated that *“it depends on the nationality of whoever your co-worker is and it depends on your client, you need to make the client feel comfortable so you speak the language that the client is most comfortable with”* (P2). This statement was confirmed by the marketing intern at Cas di Cultura (P1) who stated that she had clients who speak all four dominant languages, thus the language of communication with the clients depended on the wishes of the clients.

The two participants working at the airport (P4 and P7) stated that the language of communication with colleagues was mostly Papiamentu mixed with English when using specific work related terms, while the overall language of communication in aviation related jobs globally is English. The air traffic controller (P4) also stated that he sometimes communicates with pilots in Spanish: *“The work is basically bilingual, because we are so close to Venezuela we speak Spanish with the pilots but the main language worldwide is English for aviation”* (P4). The social worker stated that she communicates with patients in Papiamentu, Spanish and Dutch depending on what language the patients feels most comfortable speaking, *“it is very important that you understand them so you have to adjust to speak Spanish with them or speak English and if you can’t you have to use signals or find a family member that speaks Papiamentu”* (P6).

Written communication

When it comes to written communication, only one participant (P1) had experienced having to write in Papiamentu in a single case. All other participants do not write in Papiamentu for their work. Also, all participants stated that they did not feel comfortable writing in Papiamentu since they believed that their writing proficiency in the language was not sufficient enough. Participants in both focus groups stated: *“I still don’t know the official rules for writing in Papiamentu, I just make it up along the way.”* (P2), *“a fair amount of us would write pretty bad, because our grammar isn’t there”* (P7) and *“I go to the dictionary to see sometimes when I get the chance, but still there will be some mistakes”* (P5). Four participants (P2, P3, P5 and P6) reported that their paperwork was mainly in Dutch. These were the participants who deal with either law (law intern and police officer), tax law/administration (business administrator) or are working in the medical field (social work intern at hospital). It is important to note that all law and legislation in Aruba is in Dutch. The two participants working in the field of aviation reported that all written communication is in English *“in our case everything is in English, all paperwork is in English, unless it’s between us, but mostly we try to reply every mail in English so that if we have to forward an email to someone you don’t have to rewrite everything”* (P7). Participant (P5) added that communication involving legal work like contracts, are written in Dutch.

In addition, four out of seven participants from both focus groups stated that their work involved translation on a daily basis. This was due to the fact that their paperwork was mainly in Dutch, while their work involved other languages like Spanish and English.

“if someone comes to you and they talk Spanish you have to translate in Dutch at that moment put it on paper and after that maybe the person cannot understand Dutch you have to reread it for him or her in their language.” (Police officer (P5)

Although not all professions were directly represented in the focus groups, the participants did report on the language use of the other professions. Table 6 includes quotes from all three focus groups were participants reported on the language use for the 10 professions.

4.4 Comparing perception with reported practice

This part of the chapter will answer the main research question: To what extent is the students' perception of language use in professional settings in line with the reported language use. Unlike the focus groups, the survey did distinguish between verbal and written communication on the work floor. This distinction was, however, clearly made in the focus groups.

For five out of 10 professions, English was perceived as the most important language while Dutch was perceived to be the most important language for two and second most important for three out of the 10 jobs. The importance of English was overestimated for some professions like the police officer (2nd most important), the teacher (2nd most important) and the social worker (most important). The results from the focus groups indicate that although most participants need English to communicate on the work floor and sometimes to work with programs, it is not the most important language, unless you work in tourism or in aviation. As the table in appendix 6 shows, the perception of the most important language for the general practitioner (Dutch), the administrative assistant (Dutch), the teacher (Dutch), the front desk officer (English) and the lawyer (Dutch) seems to correspond with the reported practice when it comes to written communication. Verbal communication, however, depends mostly on the discussion partners' wishes for all professions. This is line with the academic foundation year students' perceptions. The importance of Papiamentu was underestimated by secondary school students for the general practitioner, the teacher and the social worker (all 3rd most important). The

focus groups show that although doctors speak in Dutch or English with co-workers or in multidisciplinary teams at the hospital, they eventually need to speak Papiamentu with most patients. They even get training in Papiamentu if they do not speak it already.

Secondary school students underestimated the importance of Spanish by ranking it the least important language for the sales person, the police officer, the front desk officer, the lawyer and the social worker. The students from the academic foundation year seemed to underestimate the use of Spanish in professional settings as well, stating that it was mostly a language needed to communicate with only tourists and Spanish speaking people. However, the focus group with professionals indicates that Spanish is indeed important for most professions because of either tourism (front desk officer, sales person), Spanish speaking people living in Aruba (social worker, police officer, lawyer) or the proximity to South America. The law intern as well as the marketing intern reported that some written communication for Spanish speaking clients is in Spanish.

Students indicated in the survey that English would be the most important language for their future job, followed by Dutch, Spanish and lastly Papiamentu. When presented with these results and asked why Papiamentu came in last, participant P7 stated: *"if you see it under a microscope of Aruba, you might get a different grade. But globally you cannot put it up there with Spanish English and Dutch I would say globally English is primary, Spanish is secondary and Dutch comes in third"* (P7). This was in line with what was perceived amongst the students from the academic foundation year.

5. Conclusion & Discussion

The Aruban adolescents participating in this study generally understand the importance of languages in the Aruban workforce, however, they often perceive Dutch

and English to serve more instrumental purposes than Papiamento and Spanish in the workforce. Although this is true for English in tourism related jobs, and Dutch in written communication in governmental, medical and legal spheres it is not the case in verbal communication as the majority professional reported on needing all languages equally. Some participants even reported needing to write in Papiamento and Spanish, which was not perceived as needed by the Aruban adolescents.

When discussing the languages they expect to need for their future job, students do however demonstrate an instrumental motivation towards all four languages. This makes a case for the constructionist approach to language learning motivation especially in multilingual societies. Perhaps students make a distinction in the importance of languages when they are presented with a forced choice. When they are forced to choose or rank the importance of the languages, general attitudes that are prevalent in their culture are revealed, while this is not shown when they are not asked to make a distinction. Further research into this is needed in multilingual contexts as the available research does not provide an accurate framework.

The results also indicate that Dutch is especially associated with higher power and authority. The association of Dutch with higher position jobs is confirmed by the results of the focus groups with Aruban professionals. The general narrative seems to be 'the higher up you go, the more Dutch you will need and the students seem to draw from experience in regards to this, which together with the Dutch education they have received reinforces the instrumental motivation towards learning the language.

Spanish was perceived to be least important in written and verbal communication for the majority of the professions, but was actually a significantly important language for the professionals, as some report having to write or speak in Spanish. The perception of use of Spanish the adolescents

have might be caused by the recent increase of immigrants from South America. This also indicates that perceptions and attitudes that students have towards languages are part of a bigger social and political context the students are part of.

Papiamento seemed to be most important in verbal communication. The use of Papiamento in written form is reported as less important than Dutch and English, this may be due to the participants' perception of their own writing capabilities in the language². This suggests that perhaps personal confidence in written communication skills in Papiamento could lead to the language being used more consistently in professional settings. However, Further research could be conducted to gauge written proficiency in Papiamento in order to assess if this issue is related to confidence or linguistics proficiency.

Due to time constraints, this research was unable to report on the standard deviations of the results. As seen in the standard deviations of the results, answers on the importance of Papiamento seem to be wider ranged than Dutch or Spanish for example. This indicates that students differ more in opinions about Papiamento than they do on the other languages. In future research, these standard deviations should be taken into account as they are demonstrative on the current debate on languages in Aruba.

The initial aim of this research was to compare the perceived language use in professional settings and the reported practice. In doing so, the research aimed to explore how attitudes and motivation are constructed in multilingual societies. From the focus groups it transpires that the way students discuss the importance of languages for instrumental and integrative purposes is a far more complex issue. However, the scope of this research and the methodology, did not allow for such a detailed analysis. This could prove to be interesting for future research.

² The professionals as well as the adolescents report not being confident in their written proficiency in Papiamento.

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Appendix 1. Q16. Indicate which language is the most important, 2nd most important etc. on the work floor for the following professions. Means, standard deviations and focus group quotes.

Profession	Language (rank)	Mean (SD)	Focus groups
Sales work	Papiamento (2) Spanish (4) English (1) Dutch (3)	2,64 (1.27) 2,82(.94) 1,83(.99) 2,70(.92)	<i>''sometimes you [as a sales person] get people that speak Spanish or English so you need to learn how to speak and communicate with those people. ''(P8.3)</i>
Chef	Papiamento (4) Spanish (2) English (1) Dutch (3)	2,84(1.20) 2,77(.94) 1,68(.90) 2,81(.92)	<i>''With me he [the chef] would speak Dutch, with the workers he would sometimes speak Spanish or Papiamento. ''(P7.2)</i>
GP	Papiamento (3) Spanish (4) English (2) Dutch (1)	2,47 (1.33) 3,12 (.87) 2,25 (.96) 2,13 (1.03)	<i>''If you are working with doctors, neurologists [communication is] most likely in Dutch.[...] but that is for the co-workers. For the patients it has to be Papiamento and even if you get workers from abroad they have to get courses in Papiamento''(P6.2)</i>
Police officer	Papiamento (1) Spanish (4) English (2) Dutch (3)	2,17 (1.27) 3,09 (.96) 2,35(.97) 2,38 (1.01)	<i>''everything is in Papiamento except the paperwork [...] paperwork is in Dutch''(P5.2)</i>
Administrative Assistant	Papiamento (3) Spanish (4)	2,57(1.29) 3,23(.96)	<i>''Yes for the administrative assistant you do have to</i>

	English (2) Dutch (1)	2,16(.86) 2,06(.94)	<i>understand Dutch, eventually all paperwork is in Dutch''(P2.1)</i>
Teacher	Papiamento (3) Spanish (4) English (2) Dutch (1)	2,68(1.15) 3,25(.86) 2,42(.91) 1,62(.90)	<i>''The teacher gives lessons in Dutch and you give answers in Papiamento.''</i> (P11.3)
Front desk officer	Papiamento (3) Spanish (4) English (1) Dutch (2)	2,83(1.25) 2,97(.95) 1,87(.99) 2,30(.92)	<i>''If you are dealing with tourists like a front desk officer, taxi driver etc you have to be able to speak English and Spanish.''</i> (P3.1)
Lawyer	Papiamento (3) Spanish (4) English (2) Dutch (1)	2,74(1.20) 3,17(.97) 2,10(.93) 1,94(.88)	<i>''..most law firms require [a lawyer] to speak Dutch and English''...</i> <i>''I didn't expect it to be such a big must to be able to also speak English well and being able to write English well and Spanish also.''</i> (P3.1)
Construction worker	Papiamento (4) Spanish (3) English (1) Dutch (2)	2,47(1.25) 2,79(1.09) 2,17(.98) 2,62(1.05)	<i>''you mostly get Spanish speaking people in construction''(P2.1)</i> <i>'' ..we are working with a construction company at the moment [...] all the contracts are in Dutch'' (P5.2)</i>
Social Worker	Papiamento (3) Spanish (4) English (1) Dutch (2)	2,58(1.26) 2,87(1.03) 2,12(1.05) 2,38(.95)	<i>''if you work with a patient it is most likely Papiamento, but you have patients who speak Spanish and some only Dutch.''</i> (P6.2)



Rachel Tromp, University of Aruba

RESEARCH, KNOWLEDGE, MEMORIES and FRIENDSHIPS, - the four words that describe the UAUCU exchange program to me.

I still remember being in the classroom listening to Mr. Eric Mijts presentation on the UAUCU exchange program, it made me realize I'm about to finish my studies at the University of Aruba, soon I will be in the work field, but have I made my academic experience complete yet?

When I started at the University of Aruba my goal was to obtain my bachelor diploma and start working but during the years I felt that something was missing. When I heard about this program my friend just came back from her student exchange abroad. She was talking about all the great experiences she had from working with international students and creating lifetime friendships. At this moment, it made me realize, I never looked outside the box and experience something other than sitting in a classroom. So, I decided to join the UAUCU program. A program where different students both locally and internationally would be working together on different research topics regarding this beautiful island called Aruba. I was aware that conducting two researches simultaneously (my thesis and this research) was going to make my weekends

longer and my weekends shorter but I was determined to do something out of my comfort zone.

This program started with many activities around the island where I learned many aspects I was not aware of before. It was incredible how little I knew about my own home. The activity that made a lifetime impact on me was the boat trip. We went to see how the 'dump' was negatively impacting our nature; it left me heartbroken how little is done about this problem by the authority.

Being a fourth year marketing student at the University of Aruba attending the Faculty of Finance, Accounting and Marketing made me interested on the topic of social media. We are all engaging somehow in social media however, I was particularly curious on how the use is impacting the companies established on Aruba. At some point we are all going to be in the professional field either working for a company or establishing our own, thus the reason I really wanted to research the social media situation. This paper will show a small aspect of the broad word social media on Aruba.

Reflecting back on my participation in this program I must say it became much more than just an academic paper. I expected to only learn about the research topics and the students' behinds these however; this exchange program exceeded my expectations.

The research enlightens many aspects of social media I was not aware of. Additionally, it was an experience where I learned about my home, where I realized I have a hidden passion for research and where I learned so much about myself. I will cherish this acquired knowledge and experiences for my further academic and professional career.

I would like to thank everyone who made this research paper possible. Firstly, I would like to thank Mr. Eric Mijts, Mrs. Jocelyn Ballantyne and Mrs. Kitty Groothuijse for the constant academic support and for making this program possible. The marketing agencies and individuals who without a hesitation agreed to participate in my research. A thank you goes to Mr. Edward Erasmus, The Lab, Expandeer, JZ Marketing Inbound Marketing Agency Aruba, Multi Media International Aruba N.V, Novelty Marketing and Bureau Innovatie.

Joining UAUCU was one of the best decisions I made at the University of Aruba. Never have I thought to meet great people from Aruba and all over the world with different backgrounds, passion and goals. It has been such an amazing experience filled with friendships, memories and knowledge. If this opportunity ever crosses your educational path I definitely recommend you to join.

Social media use on Aruba in the business perspective

by Rachel Tromp

Introduction

Social media

Don't use social media to impress people, use it to impact people.
–Dave Willis

Social media is an important topic in the everyday life of many, whether it is for personal or marketing purposes. Since 2000 social media has grown and become more popular due to the rapid changes in technology. With this came the diversification in the use of social media marketing. According to Smedescu (2013) social media marketing is described as “marketing in new and interactive types of media where prompt customer centric action becomes mandatory because of the increased power that has been acquired by consumers as a whole.”

For different companies and different people social media has another meaning. According to (Miller, et al., 2016) “Social media today is a place within which we socialize, not just a means of communication. Prior to social media there were mainly either private conversational media or public broadcasting media”. Additionally social media is described as “the production, consumption and exchange of information through social interactions and platforms”

(Marketo Inc. , 2010). The way social media is described in this research is based on the Aruban market and should not be generalized.

The use of social media started to become more common among businesses in Aruba that it even became part of the marketing mix of many companies. Nowadays social media is a must for companies especially if the company is a business to consumer. According to Stelzner (2014), social media is used in business sectors to increase exposure, increase traffic, develop loyal fans, provide marketplace insight, generate leads, improve search engines, grow business partnerships, reduce marketing expenses and improve sales. These are also considered the benefits of social media marketing.

Social media is a growing subject worldwide. A research conducted in 2014 in the United States, Canada, India, United Kingdom, Australia, and other countries showed that social media use is immensely popular all over the world (Stelzner, 2014).

The use of social media in Aruba has increased and as a consequence marketing agencies on Aruba include digital marketing in their services. With the ongoing developments in the social media world, social media became part of marketing strategies of many companies.

According to Socialbakers (2017) the top 10 Facebook pages on Aruba are:

1. Aruba
2. Aruba
3. Electric Festival
4. Hyatt Regency Aruba Resort & Casino
5. Aruba Marriot Resort & Stellaris Casino
6. Holiday Inn Resort Aruba
7. Aruba
8. Ad World Aruba
9. Love Festival Aruba
10. Crown

**Aruba has more than one page under the same name*

Many companies on Aruba are incorporated in the social media world but they are not using it at its full potential or they miss the great opportunities. This was one of the main reasons to conduct this research.

Goal

The goal of this research is to understand how social media is affecting the marketing activities on Aruba. Furthermore, it aims to find the best methods to improve the use of social media among businesses in Aruba. The reasons to conduct this research are firstly, the limitation of information. Different researches have been conducted in the past on social media on Aruba but the availability of this information is very limited. Secondly,

social media is a changing trend. It would be interesting to compare this information two to five years from now to see how it has developed. Lastly, the Aruban population is highly active on the internet and social media. According to Internet World Stats Usage and Population Statistics (2016) Aruba has 91.532 internet users which is 87.8% of the population and 78.000 Facebook users which is 74.8% of the population as of June 2016. These are high percentages of the population. In 2016 Aruba had a population of 104.263 residents. In the future this research could be compared with other studies to conclude how the situation changed or further studies can be conducted to get a complete view of social media use on Aruba.

Research Question

The main research question is: *How is 'Social Media Marketing' affecting the marketing activities in Aruban businesses?*

Sub-questions

In order to help answer the main question the following sub-questions were formulated:

1. What is the meaning of social media marketing for companies on Aruba?
2. Which social media platforms are used in Aruba for marketing purposes?
3. How did the social media use among business change in the last 2 years regarding the marketing activities?
4. To what extend are companies implementing the 'social media marketing' positively?
5. What are companies on Aruba doing regarding the growth of use of 'social media marketing'?

6. How can Aruban businesses improve the use of 'social media marketing'?

For this research the following hypotheses was formulated: *'The use of traditional marketing is shifting to social media marketing among businesses in Aruba'.*

Research Objectives

Answering the above research questions, I hope to accomplish the following objectives:

1. To better understand the use of 'social media marketing' throughout the Aruban businesses.
2. To better understand how Aruba is coping with the change of marketing.
3. To be able to identify the relevant purposes of the use of 'social media marketing' in Businesses on Aruba.
4. To be able to offer recommendations on how to improve the 'social media marketing' in Aruba among the businesses.

Research Approach

The approach used to write this paper was the linear-analytical approach. This is described as a structure to logically reflect the research process; this is the traditional way to structure a report (Saunders, Lewis, & Thornhill, 2015, p. 634).

Literature review social media

Social Media has grown on the Internet and is changing the way people use the web on a worldwide scale in the United States of America and in the rest of the world (Internet World Stats Usage and Population Statistics).

The use of Internet and Facebook is high in the Caribbean including Aruba as of 2016 according to Internet World Stats Usage and Population Statistics (2016). However this does not mean that the Aruban companies are using social media marketing accordingly. Compared to the CARICOM case study, countries in the Caribbean are also lacking effectiveness in their social media use and one of the problems is that the members of CARICOM are limited to update their social media platforms and stay interactive (Harrison, 2014).

CARICOM is defined as a "grouping of twenty countries: fifteen Member States and five Associate Members. It is home to approximately sixteen million citizens, 60% of whom are under the age of 30, and from the main ethnic groups of Indigenous Peoples, Africans, Indians, Europeans, Chinese and Portuguese. The Community is multi-lingual; with English as the major language complemented by French and Dutch and variations of these, as well as African and Indian expressions. The fifteen Member States are: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saint Lucia, St Kitts and Nevis, St Vincent and the Grenadines, Suriname, and Trinidad and Tobago. The five Associate Members are: Anguilla, Bermuda, British Virgin Islands, Cayman Islands and Turks and Caicos Islands" (CARICOM Caribbean Community, n.d).

According to Erasmus (2011) companies established on Aruba use social media for different marketing and communication purposes. In the first part of his research he found out that the most common of social media uses in Aruba are:

- Advertising of special promotions or events
- Reinforcement of brands
- Building of relations with communities

- Converse with customers
- Increase website traffic

Depending on the industry the company is established in, it may have different marketing goals to accomplish. In order to accomplish their marketing goals different social media platforms are used. Another argument for the diversification in the social media platform use is the establishment of the company. Depending in which country this is located, it will have different goals to accomplish resulting in different use of social media platforms.

World

Stelzner (2014) indicated that the number one most used social media platform in the United States, Canada, India, United Kingdom, Australia, and other countries was Facebook.

Caribbean

According to Harrison (2014) data indicated that social media is highly used in the region of the Caribbean as well as a high use of Facebook. Countries and islands in the Caribbean deal with the same main obstacle as Aruba and that is to effectively maintain online presence which is lacking in dedicated members to update and maintain the online presence.

Aruba

A research conducted in Aruba showed that as of 2011 the most used platforms were Facebook, Twitter, blogs, LinkedIn and YouTube. However, a large number of respondents stated that seeing they have many management limitations, they would rather focus their attention and time on Facebook which was the most popular network according to them (Erasmus, 2011).

In conclusion, it can be assured that since 2011 up to 2014 Facebook has been the most used social media platform in Aruba and other countries.

Many companies worldwide use Facebook for various reasons. According to Naidoo (2011) the benefits of using Facebook for marketing purposes are explained as followed.

“Firstly, it creates engagement with consumers. Facebook makes it more easy and flexible when it comes to engaging with customers. Secondly, it enhances the brand reputation and image. Companies can use Facebook to increase their trustworthiness which may ultimately result in better branding. Thirdly, it creates positive brand attitudes. There are a many factors that influence Facebook advertising, including the mood of the consumer when influenced by advertisement, their history with the company or brand, and whether the information they have entered into their profile is really accurate. Fourthly, it enhances customer relationship management. Facebook channels assists in making strong bonds between the customer and the company much more easily and thereby increasing the stability of the company. Facebook allows you to know more about the trends and preferences of the customers to act accordingly. Lastly, it helps with the announcement of new products or services. There is no other better and cheaper media than Facebook to inform the customers about the arrival or release of new products and services” (Naidoo, 2011).

By using social media for marketing purposes companies gain advantages but will also have its disadvantages. According to Baruah (2012) examples of *advantages* of using social media for marketing purposes are described as follows.

“Firstly, social media allows companies to share ideas, activities, events and interests within their individual networks. Secondly, social media eliminates the

communication gap. Social media bridges the distance among different people. It offers platforms for online users to find others who shares the same interests and build virtual communities based on those shared interests. With the availability of social media technologies and services, content sharing and user interaction has become relatively easy and efficient. Thirdly, social media is considered an important marketing tool because it is widely used by most firms or organizations to market their products or services in the community. The companies use social networking sites to generate opinions on the existing and future products that are available in the market. This is an excellent marketing strategy undertaken by most of the companies to draw consumers and public opinion. Fourthly, Social Media Networking works as an important customer interaction tool; it's perfect for customer interaction, customer feedback, and customer support. Fifthly, social media makes marketing more cost effective. It is cheaper to use online social networking for business because most of it is usually free compared to the traditional marketing. Lastly, it is less time consuming. Social media is an effective time management medium of communication for businesses" (Baruah, 2012).

According to Erasmus (2011) in the second part of his research, examples of *challenges* of using social media for marketing purposes are as follows.

"Firstly, the continuous creation of content that draws people's attention and engages them is a daring effort. Unlike ad banners or other types of advertising online, social media marketing requires a lot of nurturing. Secondly, since not everyone is on Facebook, companies still need to use traditional media, like radio, TV, newspapers, etc. to promote their business. Thirdly, just as great reviews on products and services of a company can go viral, negative news and attacks by irritated or unhappy clients against the company can also spin out of control, which could quickly damage the reputation of the company. Proper management of complaints or attacks is crucial. Lastly, getting followers or

friends is perceived as a tough effort. Launching a page on Facebook or other social media sites and posting updates has no effect, unless the company has a fan base that views and interacts with these postings. Most companies have come to realize that they can't force people to join a particular page, but they have not figured out yet either how to 'organically' acquire fans in large numbers who could ultimately turn into actual customers" (Erasmus, 2011).

Methodology

For this research a combination of literature review, desk research and qualitative research methods were used. The aim of using a combination of both desk research and qualitative research method for this research was to obtain a comprehensive understanding of social media on Aruba. The purpose was to obtain the opinions, thoughts and views of the marketing agencies on Aruba regarding the subject of social media.

Desk research

To be able to understand the broad term social media and how it is implemented on Aruba as well as worldwide, desk research was conducted. Various articles and past research papers were read in order to obtain a more extensive knowledge. This was conducted online on academic databases for instance EBSCO host, Emerald Insight and other university available databases. In this case an integrative review was conducted. Integrative review is stated as "critiques and synthesizes representative literature on a topic in an integrative way to generate new frameworks and perspectives on a topic" (Saunders, Lewis, & Thornhill, 2015).

Interviews

For the interviews the semi-structured interview method was used. The goal of the semi-structured interviews

was to understand social media on Aruba and to obtain the thoughts and views of marketing professionals. This method was chosen considering various reasons. This method provides understanding on the attitudes and opinions of the respondents including the reasoning of the respondent to have taken certain decisions. It also provides the respondents with the possibility to explain or build on their given answers (Saunders, Lewis, & Thornhill, 2015). A list was created with 11 questions in order to obtain the necessary information. During the interviews the interviewees were asked what they are most comfortable with, whether it was reading the questions themselves or for the questions to be read to them. This was to make them as comfortable as possible to be able to express more openly and provide any extra valuable information. The interviews were recorded for further analyzing purposes.

Interviewees

Since this research method had the objective to understand social media on Aruba the researcher selected 10 marketing agencies established on Aruba. The reasoning for choosing 10 out of the many established marketing agencies is due to the timeframe of this research.

At each agency a different professional was contacted. The reasoning for this was as follows:

- Every professional has a different view to add whether this was influenced by the agency or not.
- Diverse views were necessary in order to understand the social media situation from different points of view.
- Seeing that thoughts, views and opinions were desired conducting interviews with diverse people creates the opportunity for information diversification.

Out of the 10 contacted agencies 6 responded positively and agreed immediately to be part of this research. Social media was used as a source to gather more information on these agencies to be able to get in contact with them. After all the contact information was gathered, all the agencies were contacted through mail. The response on the interviews was completely positive.

Not only marketing agencies were interviewed but also individuals. Mr. Edward Erasmus was also part of the interviews for the reason that he conducted past research on the subject 'social media on Aruba'. Mr. Edwards Erasmus is lecturer at the University of Aruba at the Faculty of Accounting, Finance and Marketing and the Faculty of Arts & Science. Additionally, he is the Head of Operations at Free Zona Aruba N.V. This provided the researcher with ideas and an extensive view on doing research in Aruba regarding social media.

The participants were as follows:

1. The Lab
2. Expandeer
3. JZ Marketing Inbound Marketing Agency Aruba
4. Multi Media International Aruba N.V
5. Novelty Marketing
6. Bureau Innovatie
7. Edward Erasmus

The data collected

As mentioned before, the method used to collect the data was semi-structured interviews. The results are based on the

views & opinions of the professionals and the 11 questions that were asked during the interviews.

Views on 'Social Media' & 'Social Media Marketing'

Social media has the same principle of communication but with the help of technology. Social media is a simplified online tool to communicate with others. This changed the whole process people communicate with each other. Everything is taking place online. This information is stored and it became a big source of data. This data serves as information for companies to create specific target groups for their campaigns. Now many people go to social media for information, suggestions, news, directions, reviews and even screening before hiring an employee.

'Social media is a revolution however we haven't seen all of it yet. It's still a wave that is hitting us and it will continue like this for a long time but we just need to experience it and make the best of it.' –Edward Erasmus (2017)

Social media became part of the marketing activities when the companies realized that there is a great potential in social media marketing. On Aruba many companies tapped into Facebook because it has the highest amount of active users and Aruba was not familiar with other marketing channels aside of the traditional ones. Social media marketing is used on Aruba as a tool to reach an audience, as a communication channel and a channel to promote product and services. Social media marketing has made it easier and cheaper to do marketing while being constantly relevant and new.

'Social media marketing is never boring.' –Mitch Puts (2017)

View on the Social Media use on Aruba

Social media use is enormous on Aruba. The social media use in Aruba is still growing, especially the use

of Facebook, there are now 78.000 accounts. Aruba has embraced social media very quickly; an argument for this situation is the culture. The culture on Aruba is open for easy communication from one person to another without many difficulties or barriers. However many companies are stuck on Facebook with the mentality that this is the only social media platform that will provide them with success and generate sales. These companies have to understand that using Facebook will not directly lead to sales and that likes do not have a meaning unless the community is active. Social media should be primarily used as a tool to communicate with customers.

The influence of social media on the marketing activities among businesses in Aruba

Companies on Aruba are pressured to use social media in their marketing activities however they are facing two situations. The first scenario being companies using social media marketing efficiently. The second scenario being companies lacking in knowledge and efficiency. Social media influences the companies on a extensive level that a business cannot conduct marketing activities without social media marketing.

The social media change in the last 2 years

Social media is facing ongoing change in today's world and on Aruba this is no different. On Aruba social media has been progressing and growing in the last 2 years and the use has been intensified. Companies realized that being present on social media is important and gained the knowledge on how to use this more effectively. Lastly, not only can people socialize on social media but they can also advertise, conduct campaigns, share information and create offline experiences through innovative features. Different platforms are offering advertisement options to simplify and coordinate the campaigns more effectively nowadays.

The social media platforms use in Aruba

There is a wide variety of social media platforms worldwide, however the platforms used on Aruba are limited. The leading platforms are Facebook and Instagram followed by the smaller ones, namely Snapchat, YouTube, Twitter, Google and LinkedIn. The platform that was mentioned by all the agencies and confirmed to be the biggest platform is Facebook. The use of Instagram has been growing a lot and the main reason is that Instagram is now owned by Facebook. Since this happened the option to post on Facebook and Instagram simultaneously became available and advertising tools were introduced on Instagram. The diversification in the social media platforms use is very low on Aruba. Companies concentrate on using only Facebook as their main social media presence channel. Even though it is highly recommendable to use Facebook as one of the social media platforms it should not be the only one. Companies could really benefit from other platforms as well.

The move from the use of 'Traditional Marketing' to the use 'Social Media Marketing'

Companies on Aruba are moving from traditional marketing to social media marketing. Despite this change, companies on Aruba cannot conduct marketing campaigns without a channel on traditional marketing. This is due to the trust of the culture in traditional marketing. If something is seen online people will seek to confirm this in newspapers however this is mainly for news purposes.

The reaction of the companies to the growth of Social Media use in Aruba

Companies established on Aruba are reacting positive to the growth of social media. It works fast and has multiple usage possibilities. Additionally, companies are able to measure the success of the conducted campaigns through social media which is unattainable with traditional marketing. The

main issue for these companies is finding the right platform for the right activity. Considering the large amount of available platforms companies should invest more time in research what actually works for their type of business. This is a problem that still needs to be resolved on Aruba.

The implementation of the 'social media marketing'

Although companies are implementing social media marketing positively there are challenges involved. The first challenge is that companies are not aware of their goal. This is important information to have in order to conclude the success of the campaign. Furthermore, the targeting process is a difficult task to execute positively for some companies because they are unable to execute this strategically. Companies should use the information provided by the social media statistics to create an effective target group.

Recommendations to improve the use of 'social media marketing' on Aruba

According to the interviews, companies on Aruba can do different things to improve the use of social media marketing. Firstly, companies should hire a professional to conduct the social media marketing activities. These professionals have the knowledge to provide improvement and use it efficiently. This can be a marketing agency or an individual. If the company wants to execute the marketing activities in house the primary task is to continuously educate themselves on trends and changes. This can be done by attending seminars, taking courses or doing continuous research. Secondly, companies should have and follow a transparent goal. A goal is important to know as it will help defining the end situation that needs to be accomplished. Thirdly, companies should have a well thought out plan and strategy. This will help with guidance and focus during the campaigns. Fourthly, companies should have a clear vision of the current and potential customers. Knowing who you are targeting and who you want to target will help the company

create a better target group focus. Fifthly, the social media content should be interesting, funny, inspirational or educational. It should at least include one of the four mentioned subjects. This is to engage the customers. Sixthly, it is highly recommended that companies start using a content agenda with the information details on the posts. Avoid long term planning though because social media is a subject that changes continuously. Seventhly, companies should use social media marketing to advertise the fun elements of campaigns. Advertising serious issues and subjects on social media is not recommended. Social media is used for social purposes thus companies should keep this tone in the advertisements they place on social media. Eighthly, companies should conduct research to determine where the customers are and how to target them efficiently. Targeting their customers on the platforms where they are not present will not show any results. This will result in loss of money, time and the interest of the customers. Lastly, companies should conduct a research on past campaigns to determine what worked and what did not work to be able to improve this situation for further implementations. After each campaign companies should analyze the results to determine how well it performed. Based on this information companies will realize where and how they could improve.

The future of 'Social Media Marketing' in Aruba

Social media marketing in Aruba is going to continue to grow in the future. This method is considered the one that will most likely survive in the future because it is the place where the customers and companies are moving towards to socialize and search for information. As mentioned before social media brings many benefits such as easier and cheaper ways to advertise however the future will also bring challenges. A few are explained as follows; firstly, companies will have to work harder and become more creative in order to compete in the market. Since it is perceived that more companies are going to become part of the social media

world, it will become a place where many companies will need to compete with each other on a differentiated level in order to gain the customers. Secondly, the potential market will become larger. As it is confirmed that the advertisement part is going to continue to grow the customers will also become more involved. Companies will need to become more specific when targeting the customers in order to target the right group. Thirdly, large companies will need to acquire a website because the social media platforms will get more congested. Because different companies will compete to attract the same customers the only platform where they can be completely different is their website. Additionally, a website represents the companies' identity and it is a stable platform compared to other changing platforms. The social media platforms are owned by others and any decision taken by the owner will affect the company. Fourthly, large budgets are going to be allocated for social media marketing. Nowadays this budget is already growing however at a slow pace. For the future this budget will increase and methods to use and allocate it more efficiently will be incorporated. Fifthly, due to the constant change of social media platforms companies will struggle to keep up with all the changes. Facebook is a great platform to take as an example. Facebook constantly changes their platform and introduce new features. Companies that carry this task on their own will face challenges to keep this up to date, understand the changes and implement the new features. Lastly, campaigns are going to become more personalized towards the customers. With the availability of statistics through the social media platforms it will become easier to understand the customer base and react to it with the specific needs and wants of the customers.

Additionally, the platforms are going to continue to renew their features in order to stay interesting towards the users. Furthermore, they will aim to create the offline social experiences online, with the goal to having the users online for a longer period. This is already starting to happen with the virtual realities, Google and Snapchat glasses. Not only

are they going to renew themselves but newer platforms will be introduced.

The development of e-commerce on Aruba

E-commerce is a tricky subject to discuss on Aruba however it could be very beneficial. It is not something new to the market because it is highly used worldwide among companies, however Aruba faces many challenges regarding this subject. The main challenge was the payment method. The payment gateway was unavailable on Aruba however the two local banks namely, CMB and RBC solved this problem by offering the necessary payment method. Although it is believed that this barrier has been removed small companies face the high costs of the payment methods offered by the local banks. Furthermore Aruba also faces challenges with the law for example the 'electronic privacy sign' law. This means that online signatures are not accepted as legal signature, making online transactions invalid. Other challenges are that Aruba is not very familiar with online payment and the use of credit cards is not frequently so the trust level is low. Lastly, Aruba is a small island and the logistics are not structured for companies to implement e-commerce without the high delivery prices yet.

E-commerce is something that is being considered, however there is a long process before it can be introduced in Aruba. If e-commerce gets a proper introduction many small companies and entrepreneurs will benefit from it. Moreover when this happens, e-commerce will become more professional, the competition will rise and companies will have to find a way to stand out from the competition in order to get customers.

'E-commerce will open more possibilities for the economy, so any shop could sell their products. However, this will only happen if the disruptive and early adopters push it enough on Aruba. Only then it can become a reality and success.' – Micheal Lans (2017)

Data analysis

The conducted interview method was semi structured as mentioned before. Before initiating the execution of the interviews, literature review and desk research was conducted in order to understand and interpret the information accordingly. During the interviews the discussion was recorded and additional notes were taken. After two conducted interviews a transcript was written of each interview by listening back to the interviews and revising the notes. This provided the researcher the time to process the information while the information was still fairly new. A total of 7 transcripts were written.

After receiving confirmation and consent from the interviewees all the transcripts were ready for the analysis.

The used approach for the analyzing process was the inductive approach. According to Saunders, Lewis and Thornhill (2015) inductive approach is the approach where the data is collected and afterwards explored in order to find the underlying themes or issues to be able to follow up and concentrate on them. This technique is used for exploratory purposes. For this research the purpose was indeed to explore the social media use on Aruba in order to provide solutions for the ongoing issues. Additionally, the interviews were conducted in order to discover the perception of the participants on the social media use on Aruba.

The analyzing process started with the reading of each question and the corresponding answer carefully. This was followed by a comparison of answers in order to draw conclusions. In the analyzing section the opinions were studied, similarities and differences were compared and ideas were generated on the subject 'Social Media on Aruba'.

Discussion and conclusions

The goal of this research was to understand how social media is affecting the marketing activities on Aruba. Furthermore,

it aimed to find the best methods to improve the use of social media among businesses in Aruba. The literature review and the findings showed that social media is an important topic in the business industry. For Aruba social media means a simplified online tool to communicate with others whether they are in Aruba or somewhere else in the world. It was even determined that social media has grown in different parts of the world including the Caribbean and Aruba.

The findings showed that social media and social media marketing have two different meanings. *Social media* is focused on the use among the community with the goal of being social and sharing media. Compared to the past being social required people to gather in person and execute discussions face-to-face. Social media has encouraged people to become more active on sharing information, news and more with others in exchange for an online social feeling. Nowadays people go to social media for everything they need. Now many people go to social media for information, suggestions, news, directions, reviews and even screening before hiring an employee.

Social media grew with time and companies started to see opportunities in it. Social media marketing originated and became part of the marketing activities and the marketing mix. On Aruba *social media marketing* is focused on enhancing the marketing purposes of businesses. This marketing tool has grown substantially in Aruba especially the use of Facebook and Instagram for marketing purposes. These platforms are continuously renewing and creating advertising opportunities for companies. This has simplified the use of social media marketing for many businesses specifically the small and medium sized companies.

To answer the main research question; How is 'Social Media Marketing' affecting the marketing activities in Aruban businesses it can be concluded that social media is influencing big and small companies to use social media

marketing as an advertisement tool to attract customers online to eventually create brand awareness, sales, better communication, advertisement and successful marketing campaigns. The results showed that social media use on Aruba is immense compared to two years ago. Now almost all the companies have a Facebook page where they can promote their products and services, communicate with their customers and execute marketing campaigns. Despite the fact that social media marketing created opportunities, it also created challenges. Companies are aware that in order to execute the use of social media marketing effectively more research needs to be conducted, an individual person or a marketing agency may be needed to handle this growing use and that operating a company without social media is impossible.

Furthermore, companies on Aruba recognize the importance of social media marketing but they lack the knowledge, time and tools to carry it out effectively. Even though the use has improved with the help of professionals and marketing agencies, some companies will need to improve in the future. Additionally, the most used social media platform on Aruba is Facebook and Instagram. It has been concluded that since Instagram is linked with Facebook it has been growing. The future for social media on Aruba is positive; many professionals envision social media as a growing platform with a broad option of advertising possibilities.

In addition results confirmed that the use of traditional marketing is shifting to social media marketing among business on Aruba. According to the marketing agencies as of 2017, companies on Aruba are moving from traditional marketing to social media marketing. The use of traditional marketing is decreasing while the use of social media marketing is increasing. This can be confirmed by the growing use of digital advertisement and the increase of digital services by the marketing agencies. Despite this change companies on Aruba cannot conduct marketing

campaigns without a channel on traditional marketing. This is due to trust and the customer presence. Not the whole community is active online however more that 70% of the population is active in the digital world.

Lastly companies on Aruba can do different things to improve the use of social media marketing. The marketing agencies interviewed for this research provided the following improvement suggestions.

Firstly, companies should hire a professional to conduct the social media marketing activities. Secondly, companies should have and follow a transparent goal. Thirdly, companies should have a well thought plan and strategy. Fourthly, companies should have a clear vision of the current and potential customers. Fifthly, the social media contents should be interesting, funny, inspirational or educational. Sixthly, it is highly recommended that companies start using a content agenda with the information details on the posts. Seventhly, companies should use social media marketing to advertise the fun elements of campaigns. Eighthly, companies should conduct research to determine where the customers are and how to target them efficiently. Lastly, companies should conduct a research on past campaigns to determine what worked and what did not work to be able to improve this situation for further implementations.

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At 07:30 in the morning, when dragonflies still dominate the air, and the silent soaring of the Crested Caracara greet me, I start my day. The Conew have long gone to sleep, and the land remains quiet save for the Trupial and Bananaquit's morning birdsong, I begin my quest to find the elusive Cascabel. Notoriously difficult to find, I am not aided by its quiet nature and remarkable camouflage. As the morning progresses, the first restless movement of Cododo embarking on a new day can be heard, and I find myself experiencing nature as a great beast uncurling and waking up for another cycle of life. Within minutes, an endless stream of movement can be heard, as the lizards soak up the sun and forage for food, and I begin making transects to analyze their distribution and how they utilize their habitat. When I take a moment to rest, a Toteki stares down at me from a tree branch, while the chirping of geckos is faintly discernible nearby, punctuated by the hooting of an owl defending its burrow. After noting their presence,

I continue to look for more of their brethren. Some might call this work, but for me, it is a connection to nature far deeper than any textbook can describe.

By finding these species in areas proposed for conservation, I can aid in increasing their importance to become Key Biodiversity Areas. On Aruba, Park Arikok and the Spaans Lagoon are already a haven for locally endemic fauna, vulnerable due to their limited range. The conservation of species and the management of allotted land is a long process. Although sometimes the problems encountered seem insurmountable, I see my work as part of a puzzle. If we each contribute our piece, together our work will fit together to find a solution.

I want to help make a difference in their survival, and it is for this reason, that I chose to work on assessing future conservation areas for these species.

I would like to thank Robert Kock from the Directorate of Nature and Environment for his assistance in fine tuning my project, his ongoing support, and in giving me an opportunity to help. I would also like to thank Natasha Silva and Aldrick Besaril from Park Arikok, for teaching me to find and recognize the Cascabel, and for showing me the potential outcome of conservation through the wild beauty of Aruba in Park Arikok. I would like to thank Kaylin Palm, my student assistant from the University of Aruba's Academic Foundation Year, for her dedication and hard work. Lastly, I would like to thank my parents, for always believing in me and supporting my dreams.

Assessment of Endemic Fauna in Key Biodiversity Areas in Aruba

by Rotem Zilber

Introduction

Long before the industrial revolution, *homo sapiens* held the record among all organisms for driving the most plant and animal species to their extinctions (Harari, 2014). However, the rate of biodiversity loss has recently reached a peak, with extinction rates enhanced to 1,000 times the rate of natural extinction. On the trajectory on which we are leading ourselves, a sixth mass extinction in Earth history appears inevitable.

Habitat destruction is one of the main factors driving these increased rates of species extinction. Species that remain abundant in the undisturbed fragments are often considered less threatened by their location. However, as land becomes more fragmented, it becomes prone to the 'delayed fallout effects'. This means that current habitat destruction will cause delayed extinction during future generations, creating an ecological debt that must be compensated for in order to return the ecosystem to equilibrium (Tillman et al., 1994). It is therefore important to identify patches of land that contain a high species count, in order to conserve them and inhibit threat from the delayed fallout effect. Furthermore, MacArthur and Wilson's theory of island biogeography suggests that a smaller fragment or island has a lower potential equilibrium for the number of species. This indicates that the more fragmented the land,

the less biodiversity it can maintain in the long term.

Rockström et al.'s (2009) research on the planetary boundaries framework defines a safe operating space for humanity with respect to the Earth system. They suggest that the critical threshold of biodiversity loss from which Earth could recover has passed a tipping point from which there is a high risk of no return. Steffen et al. (2015) revised this framework by suggesting a two component approach for biosphere integrity. The first is the method used in Rockström et al.'s (2009) paper, by assessing the threshold of biodiversity using extinction as a control variable. Steffen et al. (2015) suggest that there is a risk in using this method as it does not account for phylogenetic and functional diversity, and it is unknown how much biodiversity loss Earth can withstand before change becomes irreversible. They suggest adding a second category, which assesses change in population abundance as a result of human impact on ecosystems, rather than on a global level, by comparing the current status of ecosystems to that of pre-industrial levels. By using Steffen et al.'s (2015) method, it could be possible to distinguish areas that remain mostly pristine, and therefore focus conservation efforts there.

Myers et al. (2000) have determined another method for locating conservation areas that could help maintain the highest possible degree of biodiversity, while

acknowledging a limited budget and space availability. This theory notably focuses on endemic species, which are the most restricted in range and consequently prone to extinction. A key factor in determining conservation areas is therefore the degree of endemism which presides in an ecosystem. Thus, Myers et al. (2000) conclude, the theory of hotspots, 'areas where exceptional concentrations of endemic species are undergoing exceptional loss of habitat' are areas that should be a focus for global conservation efforts. Myers et al.'s (2000) analysis of global hotspots is limited to the terrestrial realm, meaning that in the case of island hotspots, boundaries are naturally defined by the sea. It is of note that small islands in particular are already isolated lands, their size limiting the number of species that can survive in their state of equilibrium. In order to qualify as a global hotspot, a region must contain at least 0.5% of the world's plant species (1,500/300,000) in endemics. The Caribbean boasts one of the top five highest endemism to landmass ratio, containing 2.3% of the world's plants in terms of endemics, as well as 2.9% of vertebrates. One of the areas used to analyze the endemic diversity of the greater Caribbean hotspot is Aruba's national park, Park Arikok (BEST, 2016).

The Directorate of Nature and Environment (DNM) of Aruba was created in 2012 and is responsible for developing policies, conducting research, and enforcing legislation on nature and the environment (BEST, 2016). They have an ongoing project to increase nature conservation efforts beyond the national park. There are six categories under which chosen areas can fall: habitats of protected native species, habitats of species threatened worldwide, habitats of endemic species, habitats and ecosystems that have an important ecological role in the contributions and processes of conservation and continuation of the biodiversity, areas of ecological corridors between larger natural areas, and wetlands. The areas that meet any of these criteria are referred to as Key Biodiversity Areas (KBA), making them priority areas for action (BEST, 2016).

The more categories a KBA falls under, the higher the prioritization becomes to legalize its conservation status. It is important to note that in order to be designated as a protected natural area, the area must be governmentally owned public property (ROP, 2009).

This project focused on gathering data on habitats of endemic species in five terrestrial KBAs (henceforth 'research area' or RA): California, Hooiberg, Sero Biento, Sero Canashito, Rooi Prikichi dam, by answering the research question '**What is the species richness, density, diversity, and evenness of Aruba's endemic fauna in top terrestrial Key Biodiversity Areas as proposed for conservation by the Directie Natuur en Milieu?**'. This was accomplished by answering the following sub questions: '**What are the endemic fauna species of Aruba, what do they look like, what is their known habitat utilization?**', '**What is the optimal way to accomplish field observations?**', '**What are the characteristics of the RAs?**', '**What are the species distribution and density within the research areas?**', and '**How does the species richness, density, diversity, and evenness compare between the research areas?**'.

Materials and Methods

In order to identify the endemic fauna species of Aruba, their characteristics, and their habitat utilization, a literary survey was conducted. The species surveyed were: Aruban Whiptail Lizard (*Cnemidophorus lemniscatus arubensis*), Striped Anole (*Anolis lineatus*), Aruban Leaf-toed Gecko (*Phyllodactylus julieni*), Aruba Island Rattlesnake (*Crotalus durissus unicolor*), Aruban Cottontail Rabbit (*Sylvilagus floridanus nigronuchalis*), Aruban Burrowing Owl (*Athene cunicularia arubensis*), and the Brown-throated Parakeet (*Aratinga pertinax arubensis*) (DCNA, 2014). An identification sheet of photographs of each species was created, including pictures of both male and female individuals for the dimorphic species.

Preliminary visits to the RAs were conducted in order to acquaint with the habitats, learn to identify the species in the field, as well as to test which methodology proved most adaptable to the range of habitats and species. The Aruba island rattlesnake were specifically studied within Park Arikok with the assistance of a park ranger, due to their venomous nature and particular habitat requirements. Additionally, attempts were made to spot the nocturnal species, the Aruban Cottontail rabbit where their prints were found, and the Aruba leaf-toed gecko in what is considered optimal gecko habitat, at night. For the Aruba Cottontail rabbit, no live specimens were seen during the day nor night, therefore it was determined that research during the night was not necessary. As for the Aruban leaf-toed gecko, individuals were seen during the day, and none were found at night, thus further attempts at night surveys were discarded. Data on detailed daily activity was found for two species, the Aruban island rattlesnake and the Aruban whiptail lizard. The peak activity of the Aruban island rattlesnake is between 07:00-09:00 and 17:00-sundown (Reinert et al., 2002), however the snake can be found in the open in shaded areas thereafter. The optimal time for the Aruban whiptail lizard is between 10:00-12:00am. After a number of field observations, it was noted that only for finding this species was time crucial, therefore the time frame during which data was collected was adjusted accordingly to 09:30am-13:00pm.

Pilot investigations in the research areas put an emphasis on finding a method that would be suitable to study not only different habitats, but species that utilize them in different manners. The method that proved most suitable to study the species distribution and density within the research areas was through the use of transects. Standardization was necessary in order to later compare the RAs through extrapolation of the findings. It was therefore met by studying 10% of each RA. For this, RA boundaries were identified using the computer application Google Earth Pro (2016), after which the area of each RA

was calculated. Boundaries were determined for the RAs by accounting for the fragmentation of the land. The three hills Hooiberg, Sero Canashito, and Sero Biento, are completely isolated by roads and houses, therefore these were taken as reference for boundaries. California is bound by the sea and a golf course on two sides, and on the other two the California dunes and the Tierra del sol Salina. The only unfragmented area, Rooi Prikichi Dam, was determined as sketched on a map by the DNM.

Each transect incorporated species within two meters on either side of the researcher. The targeted length of transects was determined by calculating 10% of the research area, and dividing it by the 4 meters width of the transect. In order to determine the degree of error permitted in transect length, 10% of the targeted transect length was calculated by dividing the transect length by 10. An indication that standardization was met was determined by assessing the correlation between the number of individuals, the time spent per transect, and the transect length. No correlation was found between these factors, thus it was concluded that this approach was valid.

Data collection was accomplished using the 'Geo Tracker' application on a BLU Studio Smartphone. It indicates the travel route, distance, time, and elevation of any given point on the route, as well as allowing to add pin markers throughout the walk and calculating final statistics of average speed. The tracker was turned on at the starting point of analysis, after which each relevant species was noted using pin markers on the app. At the end of each transect the application was stopped, and the datasets were uploaded to Google Earth Pro. To achieve the best distribution of transects throughout the different habitats within the RA, opposite sides were analyzed. In some cases, the area appears analyzed in a less evenly distributed manner, as the vegetation either became too dense or the land too steep to continue safely. In order to identify the dominant flora during fieldwork, the guide book 'Arnold's

Zakflora' (2012) was used. Characteristics of the RAs were determined by conducting a literary survey on each area's elevation (Google Earth), substrate, and historical land use (Derix, 2016), as well as field observations.

The collected data was analyzed by plotting all the transects onto the RA maps, and by adding pins at the coordinates where each individual of each species was found. The number of each individual along each transect was counted, and the sum of each RA determined. Studies on the Aruban cottontail rabbit's closest relative on the American continent revealed that they live a solitary life, even though they may be found in proximity to each other (Trent and Rongstad, 1974). Thus, each set of prints was considered one rabbit.

In order to determine species richness, diversity and evenness, Table 3 was made to incorporate the final species count for each RA. Subsequently, species richness was determined by calculating the number of species present in each RA. A graph (Figure 1) was then created to test whether the number of individuals per area grows with RA size. determine if a relationship exists between the size of the RA and the number of species present. Under MacArthur and Wilson's theory of island biogeography, it is expected that the larger the area, the higher the potential equilibrium number of species. This additionally means that in larger patches, there is more space available for more individuals of each species. The species richness was then inserted in the Shannon-Weaver Index (H') for calculating species diversity, using the equation $H' = -\sum p_i \ln p_i$, where p_i is the proportion of species i , relative to the total number of individuals of all species present. This is then multiplied by the natural logarithm of the same p_i . This is done for each species, and the sum of all multiplied by (-1) (M. Beals, 2000). Although the Shannon-Weaver Index accounts for species evenness, the index tends to yield a higher result with increasing number of species. Therefore, species evenness was calculated using the Pielou Index (J). This was based on

the results of the Shannon-Weaver Index, with the equation $H' = -\sum p_i \ln p_i$, where H' is the result of the Shannon-Weaver Index, which is divided by the natural logarithm of S , the number of species present in the area (Aho, n.d.). Finally, a comparison between the RAs was drawn using the results, and their order of suitability as conservation areas for endemic species determined.

Results

Table 1 gives an overview of the endemic fauna species of Aruba, what they look like, and what is known about their preferred habitat. The field identification sheet that was created included the name and pictures of each species, and in cases of dimorphism, of both male and female individuals. Table 2 gives an overview of the information calculated and gathered on the research areas, their elevation and substrate, as well as the results for the calculated area, transect length, margin of error for transect length, and accomplished transect length. Dominant vegetation as observed during fieldwork is presented. Lastly, observations made during fieldwork and anthropogenic use of the RAs is explained. As can be seen in the table under 'accomplished transects', additional transects need to be accomplished in the areas of California and Hooiberg in order to complete the standardized 10% of the RA.

The number of individuals of each species as found in the RAs, and the results of the calculations for species richness, density, evenness, and subsequent RA ranking, can be viewed in Table 3. Figure 1 is a graph that shows the number of individuals of all species by plotting the number of individuals per RA area^{0.25}. The resulting trendline shows an R^2 value of 0.86, meaning that there is a positive correlation that the smaller the size of the RA the higher the number of individuals present. Figures 2-6 depict maps of the RAs, showing the transects accomplished, as well as the location of where each individual of the species were found.

Species Profile				
Species				Identification (IUCN)
Latin	English	Papiamento	Dutch	
<i>Cnemidophorus lemniscatus arubensis</i>	Aruban Whiptail Lizard	Cododo	Arubaans Renhagedis	Hummelinck, 1940
<i>Anolis lineatus</i>	Striped Anole	Toteki (Aruba), Waltaca (Curacao)	Gestreepte Boomhagedis	Daudin, 1802
<i>Phyllodactylus julieni</i>	Aruba Leaf-toed Gecko	Arubaans pegapega	Gekko	Cope, 1885
<i>Crotalus durissus unicolor</i>	Aruba island rattlesnake	Cascabel	Arubaans Ratelslang	Van Lidth de Jeude, 1887
<i>Sylvilagus floridanus nigronuchalis</i>	Aruban Cottontail rabbit	Conew	Arubaans Katoenstaart Konijn	Hartert, 1894
<i>Athene cunicularia arubensis</i>	Aruban burrowing owl	Shoco	Holenuil	Cory, 1915
<i>Aratinga pertinax arubensis</i>	Brown-throated parakeet	Prikichi	Maisparkiet	Hartert, 1891

Species Profile		
Habitat	Description	Comments
Reptiles		
Endemic to Aruba. Abundant in differing densities island wide. Optimal habitat is flat terrain with deep sandy soil, plentiful vegetation, shrubs with a large basal or stem area, a large shrub-open area margin, and a complex temperature profile (Schall, 1974).	Breeding males are characterized by a bright blue sheen. Non breeding males are equally large but have blue spots rather than a solid coloring. Females are brown with dark stripes and blue spots on their sides (Arikok FactSheet).	
Endemic to Aruba and Curacao. Mostly found on tree trunks and branches. Commonly on tree species such as <i>Acacia tortuosa</i> (Arikok FactSheet).	Both genders are different shades of greenish brown, with two black stripes along their sides (Arikok Fact sheet). Breeding males have a uniquely asymmetrical bright orange dewlap with a black spot, and typical extendable dorsal crests upon their neck and back. Females are smaller in size and have a smaller dewlap of the same coloration (Gartner et al., 2013).	
Endemic to Aruba. <i>Phyllodactylus</i> genus are known to prefer arid to semi-arid habitats, where they live under tree bark and rock crevices (Dixon, 1962).	Clover leaf toes with white pads. Light brown with darker stripes.	
Endemic to Aruba. Limestone outcropts, with a primarily barren ground and shade in the form of trees and low bushes. Peak activity between 07:00-09:00, 17:00-sundown (Reinert et al., 2002). Outside these times, the snake remains in the open, in shaded areas.	Light brown to grey brown in coloring. Slightly darker diamond shapes on the back (Arikok FactSheet).	IUCN redlist (IUCN).
Mammals		
Endemic to Aruba and Curacao. Distributed almost island wide. Prefers lightly hilly ground with a quartz-diorite substrate, predominantly on the south and east sides of the hills, with availability of melocactus for food (Bekker, 1996).	Long ears with longer hind limbs than forelimbs. Grey brown fur on the back, white underbelly, tail, and ear margins. Black patch on the back of the neck (Bekker, 1996).	
Birds		
Endemic to Aruba. Denser distribution in urban areas. Require open space with substrate into which it can dig a burrow (Derix, Peterson, and Marquez, 2011).	Generally found as individuals or in pairs outside burrows, which they dig into the ground. Various shades of speckled brown. Small in stature with long legs. Males are slightly larger than females.	National symbol. Locally Endangered (DCNA, 2014).
Endemic to Aruba. Island wide. Commonly found solitary or in pairs, although they are known to for flocks of up to 100 individuals (Derix, Peterson, and Marquez, 2011).	Dominantly green colored parrot, with a brown throat, and yellow ring around the eyes. Their screech is loud and easily identifiably.	National bird.

Table 1- Species profile- the endemic species of Aruba, their preferred habitat, and a description of each species.

Research Areas							
Research Area	Maximum Elevation (m) (GoogleMaps, 2016)	Size (m ²)	Transect Length Aim (m)	Error Margin (m)	Transect Length Accomplished (m)	Substrate (Derix, 2016)	Identified Dominant Vegetation
California	20	691,000	17,275	1,727.50	4,002	Limestone Reef, Alluvial Mud and Sand, Quartz Diorite	<i>Vachellia tortuosa</i> , <i>melocactus</i> , weeds and grasses
Hooiberg	165	239,000	5,975	597.5	5,039	Hooibergiet	<i>Cereus repandum</i> , <i>Stenocereus griseus</i> , <i>melocactus</i> , <i>acacia</i> , <i>Calotropis procera</i>
Sero Canashito	55	184,000	4,600	460	4,684	Hornblende Tonalite, Limestone Reef, Alluvial Mud and Sand	<i>Pithecellobium unguis-cati</i> , <i>Aloe vera</i>
Sero Biento	64	98,000	2,450	245	2,389	Hooibergiet, Hornblende Tonalite	<i>Cereus repandum</i> , <i>melocactus</i> , <i>agave</i>
Rooi Prikichi Dam	29	25,000	625	62.5	639	Hornblende Tonalite	<i>Cereus repandum</i> , <i>Stenocereus griseus</i> , <i>melocactus</i> , <i>opuntia caracasana (tuna)</i> , <i>acacia</i> , grasses

Research Areas
Comments
<p>The length of this area ranges from the California Dunes to Tierra del sol Salina along the north east coast of the island. The coast is rocky with fossilized coral shelves, which change to a barren sandy landscape with increasingly weedy vegetation and low bushes inland. The inland boundary of the area is recognized as the fence of the golf course, where the ground is increasingly hilly and dominated by a rocky substrate and turkshead cacti. Many a tourist and local visit this area for recreational purposes such as four-wheel drives, jeeps, motorcycles, jogging, and strolling.</p>
<p>The area is surrounded by road on all sides and is one of the highest peaks on Aruba. The hill is used for recreational purposes, and has a staircase leading to the top. There are numerous additional paths from humans and goats alike. The lower elevations appear more dense in vegetation. There are multiple antennas on the top of the hill from the telecommunication company Setar.</p>
<p>The base of the north west side of Canashito was used as an aloe vera farm in the early 1900's (Derix, 2016). This has affected the vegetation in the area, causing the north west side to appear as an overgrown garden, whereas the top, dominated by a reef terrace, remains barely vegetated. The south side of the hill is dominated by a dry forest of acacias and shrubs. The south west of the hill has been excavated for use by a building company, however remains abandoned. There is a paved road and a large portion of excavated land, with some abandoned structures and piles of building material. The north side additionally has a number of caves with Arawak cave paintings and bats. This area is bound by roads and the Canashito factory.</p>
<p>A low hill lying between Hooiberg and Sero Canashito, Sero Biento is not very densely vegetated in most areas. The base on the southwest side was historically used as an aloe vera plantation in the early 1900's. There remains an old house structure with a large overgrown garden (Derix, 2016). There are a number of walking paths on the hill, and a deck on one of the peaks. This area is bound by roads on all sides.</p>
<p>A temporary lake lies in this area, where numerous rooien merge. It appears relatively untouched by humans, although it is easily accessible through the surrounding rooien. The study area was determined as roughly explained by the DNM.</p>

Table 2- Research area profile- the research areas, their elevation, area, calculated transect length, margin of error for transect length, accomplished transect length, substrate, dominant vegetation, and general comments.

Species Density, Extrapolation, Richness, Diversity, and Evenness										
Area	California		Hooiberg		Sero Canashito		Sero Biento		Rooi Prikichi Dam	
Species (# of individuals)	Total	Extrapolation	Total	Extrapolation	Total	Extrapolation	Total	Extrapolation	Total	Extrapolation
<i>Cnemidophorus lemniscatus arubensis</i>	96	960	47	470	57	570	59	590	24	240
<i>Anolis lineatus</i>	0	0	0	0	6	60	0	0	0	0
<i>Phyllodactylus julieni</i>	0	0	0	0	0	0	0	0	2	20
<i>Crotalus unicolor</i>	0	0	0	0	0	0	0	0	0	0
<i>Sylvilagus floridanus nigronuchalis</i>	0	0	4	40	4	40	0	0	0	0
<i>Athene cunicularia arubensis</i>	3	30	2	20	2	20	0	0	0	0
<i>Aratinga pertinax arubensis</i>	0	0	0	0	2	20	0	0	0	0
Total	99	990	53	530	71	710	59	590	26	260
Species Richness	2/7		3/7		5/7		1/7		2/7	
Ranking	3.5		2		1		5		3.5	
Species Density (#ind/area)	0.001		0.002		0.004		0.006		0.01	
Ranking	5		4		3		2		1	
Species Diversity (H)	0.14		0.43		0.75		0.00		0.27	
Ranking	4		2		1		5		3	
Species Evenness (J)	0.2		0.39		0.47		0		0.39	
Ranking	4		2.5		1		5		2.5	

Table 3-The number of individuals of each species found in each RA, the extrapolation of this data, the results of the calculations, and the ranking for each area for species richness, density, diversity (Shannon-Weaver Index), and evenness (Pielou Index).

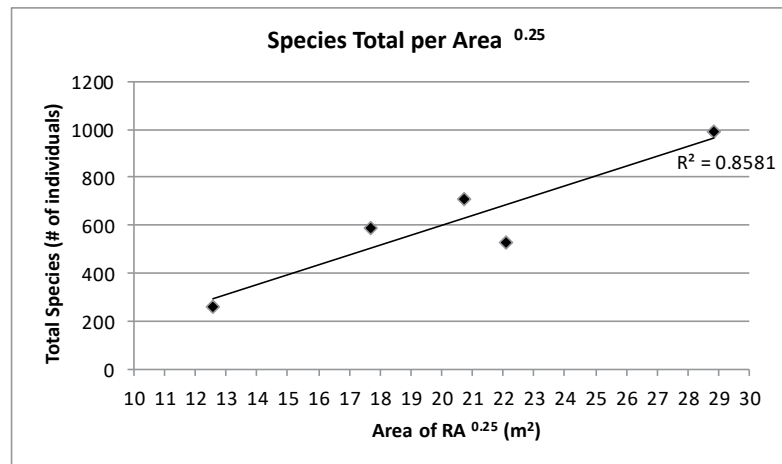


Figure 1

Figure 1- Graph of the number of individuals of all species observed in each RA in relation to its size^{0.25}.



Figure 2

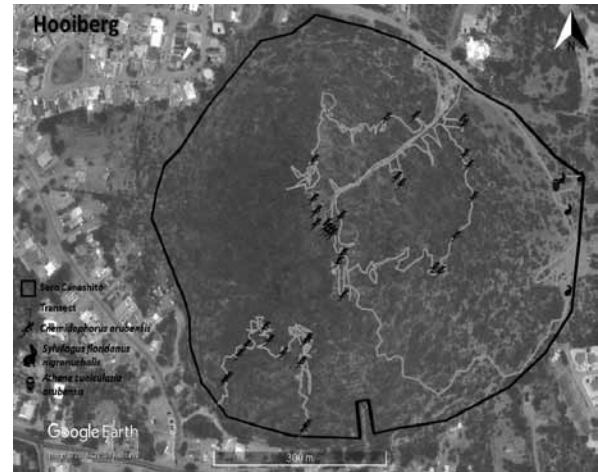


Figure 3

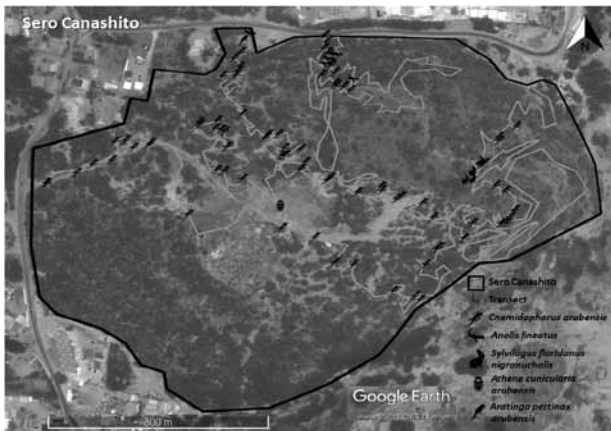


Figure 4

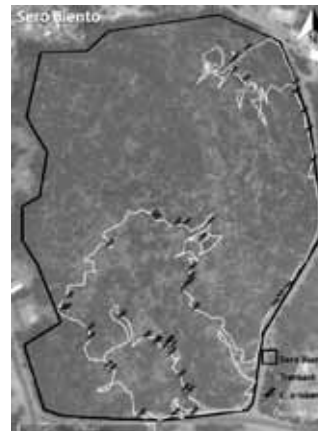


Figure 5

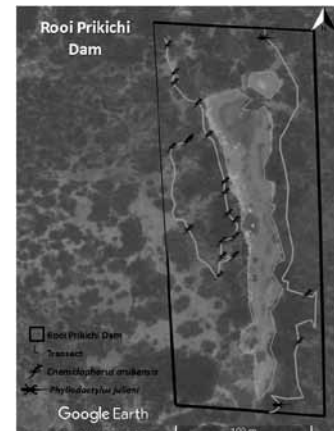


Figure 6

Figure 2- Map of research area 'California', the accomplished transects, and species location on transects.

Figure 3- Map of research area 'Hooiberg', the accomplished transects, and species locations on transects.

Figure 4- Map of research area 'Sero Canashito', the accomplished transects, and species locations on transects.

Figure 5- Map of research area 'Sero Biento', the accomplished transects, and species locations on transects.

Figure 6- Map of research area 'Rooi Prikichi Dam', the accomplished transects, and species locations on transects.

Table 3 additionally yields the result of the Shannon-Weaver Index and the Pielou Index. The calculated species richness shows that the RA with the most species is Sero Canashito with 5 species present, followed equally by Hooiberg with 3 species, thereafter California and Rooi Prikichi Dam with 2 species each, and lastly Sero Biento with 1 species. Results of the Shannon-Weaver Index for species diversity yielded that Sero Canashito has the highest species diversity, followed by Hooiberg, Rooi Prikichi Dam, California, and Sero Biento. The Pielou Index places Sero Canashito with the highest species evenness, and in second place Hooiberg and Rooi Prikichi Dam with an equal evenness of 0.39, with a subsequent order of California and Sero Biento.

Discussion and Conclusion

A number of observations and patterns were noted on the different species of endemic fauna during fieldwork. Firstly, discrepancies in ground truth data may be largely attributed to unseen and unidentified individuals. During fieldwork, individuals were heard but not seen in all RAs. Adding them to the count would result in unreliable data, as they may not have been correctly identified. Additionally, some species are easier to spot, in particular dimorphic species such as the Aruban whiptail lizard and the Striped anole, where males are a bright turquoise color in the former, and a light green in the latter. This may cause discrepancies in the observed male to female ratio.

The Aruban whiptail lizard was present in all habitats. This lizard is known to be widely abundant on the island. Their numbers have even grown further since the introduction of the *Boa constrictor* (Goessling et al., 2015). Their distribution throughout different habitats within the RAs showed a number of similar observations. In the area of California, as the transects moved inland, the more dominant the vegetation, although the flora present grows in patches surrounded by open area. Interestingly, the

Aruban whiptail lizards abundance increased in a similar manner, particularly that of adults. On the limestone shore, none were present. Consequently, the abundance of the Aruban whiptail lizard appears correlated to the increase in vegetation in California. In Sero Canashito, barely any individuals were found in the thick vegetation on the northern side. On the other hand, in the excavated area, where there now grow a number of bushes surrounded by open ground, there was a high density. A commonality of both these areas of high abundance, was bushes surrounded by ground, open to direct sunlight. According to Schall's (1974) study on this species preferred habitat type, this form of habitat is one of the optimal candidates.

Hummelinck (1940), states that specimens of the striped anole have been collected from Hooiberg, but none were found during this research. This species of anole is present on Curacao in large numbers, and ongoing research reveals that they are found in urban and in natural environments. It can be hypothesized that because the findings on Aruba were prior to the arrival of the *Boa constrictor*, they may no longer be applicable. This is due to the life habits of the two species, which spend the majority of their time on trees. As the anoles sleep at night, the boas hunt in the trees. Further research is needed to determine if there is indeed a correlation between the arrival of the boa and the population density of the striped anole on Aruba.

Specimens of the Aruban leaf-toed gecko, on which little is known, were collected from Hooiberg and Sero Canashito in the past (Hummelinck, 1940). None were spotted in either areas during this research. Nonetheless, it cannot be concluded that they are not present, as they are difficult to find, spending the majority of their time underneath tree bark. It appears that unlike its nearest relative *P. martini* of Curacao, the Aruban leaf-toed gecko is not widespread nor abundant on the island (IUCN, 2016). Further research is necessary to gain a better understanding of their life habits and distribution. Danger to their population comes not only from human development, but

also as a consequence of potential competition from the newly invasive cosmopolitan house gecko, *Hemidactylus mabouia* (van Buurt, 2012). It was noted during fieldwork that on trees where the Aruban leaf-toed gecko were found, more gecko species were also present, in particular *Gonatodes vittatus vittatus*. However where *Thecadactylus rapicauda* was found, the second native large gecko (van Buurt, 2015), no Aruban leaf-toed geckos were found.

The habits of the Aruban island rattlesnake are well studied. It is known that they do not stray far from their territory, and although they live in solitary, they may be found in close proximity (Reinert et al., 2002). From the known distribution map of these snakes, it is not surprising that none were found in the majority of RAs. However, Rooi Prikichi Dam appears to fall within their known locations (Reinert et al., 2002). This may or may not be as a result of interpolation on the map between where specimens were found. Further investigations will reveal whether they utilize this habitat.

The Aruban cottontail rabbits on Sero Canashito were not live specimens, but skulls, as identified through literary analysis (Bekker, 1996). It was not possible to verify whether living specimens reside on the hill, because its substrate does not show paw prints. In contrast, prints were found on the base of Hooiberg, although no specimens were spotted. Additionally, prints were found in two rooien leading to the Rooi Prikichi Dam. As they were outside the RA boundaries, they were not included in the results.

For the majority of the studied species, extrapolation does not appear useful to gauge their true densities. For example, the brown-throated parakeet were spotted in Sero Canashito. However no nest was found, and they were spotted leaving the RA. Therefore although they may pass through the RA, their numbers differ constantly, so extrapolation proves unreliable. This may also be the cause for why they were not spotted on Hooiberg and California, where they had previously been sighted (Derix, Peterson, and Marquez, 2013).

For the Aruban burrowing owl the case is slightly different, as they nest on the ground and are known to stay in the same territory. These owls require substrate in which they can dig out burrows with their claws, limiting them to sandy areas which may not encompass the entire RA. In the past they were noted to appear communally on the north coast, in the vicinity of the California RA. This is no longer the case (Derix, Peterson, and Marquez, 2013), thus extrapolation proves unreliable. Although Derix, Peterson, and Marquez (2013) report that the Aruban burrowing owl was present in the Rooi Prikichi Dam area, none were found during this research.

Lizard populations on islands are dense (Benett and Gorman, 1979), and their territories small. Hence, the extrapolation does not have as large a margin of error as it does for the bird species, and therefore proves useful. For the only mammal, the Aruban cottontail rabbit, no data was found on known densities or life habits, with the exception their preference for nocturnal foraging. Accordingly, it is not possible to say whether extrapolation is useful.

Differences in species composition in the different RAs are not surprising, as they sufficiently encompass different habitats. California is a sandy, relatively barren, area. Hooiberg, with its steep slopes, is densely vegetated at the base and top. The dominant vegetation is *acacia* and *Cereus repandum*. Sero Canashito has a number of different sub-habitats. On the northern slopes, the vegetation is dense, with trees such as *Guaiaacum officinale* and *Quadrella odoratissima*, and the understory with *Aloe vera* and *agave*. The top of the hill is a reef terrace with little vegetation. On the western side, there is a barren excavated area dominated by a sandy substrate and mounds of sand. On the south, an *acacia* forest dominates with an *agave* understory. Sero Biento is densely vegetated at the base with *acacia* and *Cereus repandum*, and the understory is dominated by *Aloe vera* and *agave*. The higher elevations are similarly yet sparsely vegetated. Rooi Prikichi Dam is dominated by a temporary water body, still present in the months after

the rain season. The ground is alternately grassy and rocky, and *acacia* and *Stenocereus griseus* form a sparse forest. These different habitats suit different species, but additional factors such as anthropogenic impact, food availability, as well as competition and/or predation from other species, may all have an effect on their presence.

When plotting the number of individuals of species to the function of RA size, the area was rescaled by resizing to the power of 0.25, which is an approximation of log-transformation and makes the distribution less skewed. Figure 2 shows a positive correlation between the number of species individuals with increasing size of each RA. This can be explained through the theory of island biogeography, which suggests that a smaller fragment or island has a lower potential equilibrium for the number of species. It also supposes that areas ten times as large hold twice as many individuals of these species. Neither of these are linear relationships, and therefore although the comparison between the equilibrium is not correct for this research, as only endemic species were accounted for, it does explain why the individual to area ratio appeared higher in the smaller RAs in the initial calculations.

The difference in ranking between the species richness and the species evenness can be explained by the increased result of the evenness as a consequence of the number of individuals being spread more evenly between the present species. However, habitat quality also affects the numbers of individuals present, therefore looking at the relative ranks of the number of individuals per area and evenness, a different pattern emerges. Species richness, diversity, and evenness, all have the same ranking, only slightly differing in that Rooi Prikichi Dam was alternately even with California in species richness, and with Hooiberg in species evenness.

From initial literary analysis, it was expected that 5 of the 7 species would be present in both Hooiberg and Rooi Prikichi Dam. This would have increased their results for

species richness and diversity, but without knowledge of the species density, it is unclear whether the species evenness would have increased. Although California and Hooiberg maintained a midstream score on all counts, they are also the most anthropogenically impacted. Therefore, changing their status to conservation areas may not be as effective in the long term, if continuous visitation to these areas is permitted. Lastly, Sero Biento scored lowest in species richness, diversity, and evenness, due to the presence of only one species. However, further research should be conducted in this area on endemic flora, in particular *agave*, which were found in abundance, and therefore may increase the areas importance for conservation.

The Caribbean hotspot as described by Myers et al. (2000) identified Park Arikok as a contributing habitat for the preservation of endemic biodiversity. This research has revealed that a number of Aruba's endemic species are likely disappearing from their former range. Although Park Arikok is of significant size, it can only contain a limited population of Aruba's endemic species. Individually, the RAs analyzed in this paper may not appear significant in comparison to the park's size and species richness. However, together they encompass habitats suitable for all of Aruba's endemic fauna species. In conclusion, it is imperative to establish their status as legal conservation areas.

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The past few weeks have been an eye-opening experience for me. I have been confronted with the different social, economical and environmental challenges that Aruba faces in its effort to pursue a sustainable development. When it comes to biodiversity conservation, there is much room for improvement. Whilst we are one of the richest and most diverse areas of biodiversity on Earth, we are also one of the most threatened. Nature is fundamental to economic growth and sustainable development, providing ecosystem services and delivering the landscapes and wildlife our tourism industry depends on. Therefore, protecting the environment our unique animals and plants live in is an investment in every Aruban's future. We have much to lose so we need to do more to protect our environment. Protecting and investing in our environment is everyone's responsibility. We owe it not only to ourselves, but also to future generations.

Furthermore, in the past few weeks I have improved my research skills and the ability to express my

ideas, thoughts and knowledge through writing. I have always been a thinker, but throughout my research, I have greatly sharpened my critical analysis skills. I have learned to continuously ask "why" on many different levels and challenge myself intellectually.

A special thank you goes out to Eric and Jocelyn and the UAUCU students for providing me with this unforgettable opportunity. Thanks to them I have come to understand the power of diversity and collaborative efforts.

Environmental law: national and international perspectives

Larisa Leeuwe

Introduction¹

Small Island Developing States (SIDS) are rich in marine and terrestrial biodiversity that in many cases is fundamental to their livelihoods and identity.² Biodiversity-based industries such as tourism and fisheries are vital for SIDS, since they account for more than half of the gross domestic product (GDP) of SIDS economies.³ While SIDS account for approximately 3% of the world's land area, estimates suggest that they are home to about 20% of all plant, reptile and bird species on the planet. Due to the isolation of these islands, they often harbor higher concentrations of endemic species.⁴ Thus, SIDS are extremely important for the conservation of global biodiversity. However, due to their generally small size, isolation and the fragility of their ecosystems, SIDS face particular challenges regarding the

conservation and sustainable use of their biodiversity.⁵ As a result, their biodiversity is among the most threatened in the world. Some of the common threats to island biodiversity are pollution, overexploitation, natural disasters, invasive alien species, climate change and habitat deterioration.⁶

The island state of Aruba is no exception. The degradation of the environment started around 1500 as a result of grazing by free roaming herds that were introduced by the Spaniards. Aloe cultivation and soil extraction with the arrival of the Dutch have led to further degradation of the environment. The opening of the Lago refinery in 1924 and the subsequent incineration of waste in the open air, dumping of chemicals and the discharge of untreated sewage into the ocean, have also seriously affected the Aruban environment and biodiversity. The arrival of the refinery was followed by an increase in tourism, again followed by a rapid population growth in the late eighties. As the tourism industry rapidly expanded there was a tremendous growth in the Aruban economy, which in turn has had its effect on nature and biodiversity. Despite the efforts of many, resulting in dozens of environmental reports on Aruba and the region⁷, regulations and the government's focus

1 References in this paper are made in accordance with the guidelines set forth in the Leidraad voor Juridische Auteurs (Guide for Legal Authors) 2016.

2 General Assembly resolution 69/15, SIDS Accelerated Modalities of Action (SAMOA) Pathway, A/RES/69/15, 15 December 2014, p. 22, available from: undocs.org/A/RES/69/15 (last visited on April 3, 2017).

3 Secretariat of the Convention on Biological Diversity 2014, p. 4, available from: <https://www.cbd.int/idb/image/2014/idb-2014-booklet.pdf> (last visited on April 2, 2017).

4 UN-OHRLS 2013, p. 7, available from: http://unohrlls.org/custom-content/uploads/2014/04/SIDS_IN_NUMBERS_121813_FA_WEB.pdf (last visited on April 3, 2017).

5 General Assembly resolution 167/9, Report of the Global Conference on the Sustainable Development of Small Island Developing States, A/CONF.167/9, October 1994, p. 8.

6 UN-OHRLS 2013, p. 7.

7 J.W.T. Koopmans, E.L. Sjak-Shie & G.A.E. Thodé 1994, p. 1, 21, 155.

on sustainable development⁸, destruction of nature due to construction and infrastructure development can still be seen on Aruba today.

The global concerns around biodiversity loss have resulted in the adoption of various international treaties that aim to conserve, promote and encourage the protection of flora and fauna and their habitats. Some of these treaties are already in force for Aruba. The Convention on Biological Diversity (CBD) is the first international agreement to recognize the conservation of biological diversity as 'a common concern of humankind' and aims to provide a legal framework specifically for the purpose of biodiversity conservation in State Parties. Other international agreements that are of relevance for biodiversity conservation are: the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), the Convention on Wetlands of International Importance (Ramsar), the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention), and the Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway – a non-binding resolution adopted by the United Nations.

While the Aruban government has made progress in terms of sustainable energy ambitions and development, many other pressing issues such as biodiversity management and species conservation remain fragmented and embattled.⁹ This paper aims to meet the need for an analysis of the relevant (international and national) instruments available to the Aruban Government for the conservation of biodiversity in Aruba. In order to aid in the effort to protect Aruba's biodiversity, the following research question and sub-questions will be addressed: What are the (international and national) legal instruments available to the Aruban Government for the conservation

of biodiversity and do the national legal instruments accede to the international obligations of Aruba under the relevant treaties?

Sub-questions:

1. What are the international legal instruments available to the Aruban Government for the purpose of biodiversity conservation?
2. What are the national legal instruments available to the Aruban Government for the purpose of biodiversity conservation?
3. Do the national legal instruments accede to the international obligations of Aruba under the relevant treaties?

International legal framework

Pursuant to Article 3 of the Charter for the Kingdom of the Netherlands, the conclusion of treaties is considered as a 'Kingdom affair'. Only the Kingdom of the Netherlands is a subject of international law. Consequently, only the Kingdom has the authority to conclude international legal agreements. The Kingdom may conclude international agreements for the entire Kingdom, or for one or more of its constituent parts. If Aruba seeks accession to an international legal agreement, the Kingdom will only be bound for the Aruban territory. Nevertheless, it is the Kingdom that will become party to the international agreement and therefore remains accountable under international law.¹⁰ Provisions of international agreements that are binding upon everyone, are directly applicable in the Kingdom. In case of incompatibility of such provisions with national law, the directly applicable international norm shall prevail. Biodiversity-related provisions can be found in a number of international agreements. As a

⁸ Green Aruba: www.greenaruba.org (last visited on April 3, 2017).

⁹ Report of the Ministry of Economic Affairs 2014.

¹⁰ Report of the Ministry of Foreign Affairs 2015.

result, Aruba has international obligations under these agreements to take (legal) measures for the purpose of protecting its biodiversity. The international biodiversity-related agreements that are of relevance for Aruba will be discussed in the following paragraphs.

The Convention on Biological Diversity (CBD)

The Convention on Biological Diversity (CBD) was created and adopted by governments at the 1992 Earth Summit in Rio de Janeiro, when world leaders agreed on a comprehensive strategy for sustainable development that would meet current needs while ensuring a healthy and viable planet for future generations.¹¹ The CBD entered into force for Aruba on June 4th, 1999. Conceived as a practical tool for translating the principles of Agenda 21 into reality, the CBD sets out commitments for maintaining the world's biodiversity, which directly supports the livelihoods of billions and underpins global economic development. The CBD defines biological diversity as 'the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems' (Article 2, CBD 1992). Thus, the Convention also applies to marine biological diversity.

Article 1 of the CBD states that its main goals are: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits from the use of genetic resources. The Convention defines sustainable use as 'the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations

of present and future generations.' Under Article 6 of the Convention State parties are required to develop national strategies, plans or programs for the conservation and sustainable use of biodiversity or adapt for this purpose existing strategies, plans or programs which shall reflect the measures set out in the CBD. Furthermore, State Parties are required to integrate, as far and as appropriately as possible, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs and policies.

Under Article 7 of the Convention, State parties are required to identify components of biological diversity important for its conservation and sustainable use and monitor these components through sampling and other techniques, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use. Furthermore, State Parties are required to identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques.

The Convention on Biological Diversity defines *in-situ* conservation as 'the conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings and, in the case of domesticated or cultivated species, in the surroundings where they have developed their distinctive properties' (Article 2, CBD 1992). For the purpose of *in-situ* conservation State Parties are required under Article 8 of the Convention to establish a system of protected areas or areas where special measures need to be taken to conserve biological diversity, and develop or maintain necessary legislation and/or other regulatory provisions for the protection of threatened species and populations in said areas. Under Article 13 of the Convention, State parties are required to promote and encourage understanding of the importance of, and the measures

¹¹ Secretariat of the Convention on Biological Diversity 2005, p.2, available from: <https://www.cbd.int/doc/publications/cbd-sustain-en.pdf> last visited on April 3, 2017).

required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programs.

The Convention on International Trade of Endangered Species (CITES)

The Convention on International Trade of Endangered Species (CITES) is a multilateral treaty signed by governments, which aims to prevent the extinction of animal and plant species as a result of international trade. It aims to do so by designating species whose specimens may be exported only subject to certain conditions. CITES has been in force for Aruba since 1995. Under Article 2, CITES makes a distinction between:

- (1) species threatened with extinction which are or may be affected by trade;
- (2) species which may become threatened with extinction unless trade in specimens of such species is subject to strict regulation by the Parties; and
- (3) species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the cooperation of other State parties in the control of trade.

Trade in specimens of threatened species must be subject to particularly strict regulation and must only be authorized in exceptional circumstances. Parties are required to only allow export of specimens of protected species if a permit, subject to certain conditions contained in Articles 3 and 4 of CITES, is granted. Approximately 30,000 species of plants and 5,600 species of animals fall under the scope of CITES.

Under Article 8 paragraph 1, State Parties are required to take appropriate measures to enforce the

provisions of CITES and to prohibit trade in specimens which are protected under CITES. These measures include penalizing the trade in and/or possession of such specimens and to provide for the confiscation or return to the State of export of such specimens.

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)

The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) has been in force for Aruba since January 1, 1986. The Bonn Convention aims to conserve species that migrate across national boundaries, their habitats and their migratory routes through international cooperation. It aims to do so by providing strict protection for endangered migratory species (listed in Appendix I of the Bonn Convention), and by arranging for the conclusion of multilateral agreements for the conservation and management of migratory species, which require or would benefit from international cooperation (listed in Appendix II of the Bonn Convention). While CITES is mostly based on the assumption that populations are static, the Bonn Convention acknowledges that certain species regularly move across national borders and that international cooperation is of vital importance for the conservation of these species. The Bonn Convention therefore supplements the provisions of CITES.

The Convention on Wetlands of International Importance (Ramsar)

The Convention on Wetlands of International Importance (Ramsar) aims to protect wetlands of international importance and provides a framework for the conservation and wise use of wetlands and their resources. Ramsar defines a wetland as an area of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water depth of which at

low tide does not exceed six metres (Article 1, Ramsar). Under Article 2 of Ramsar, parties are required to designate at least one wetland for inclusion in a List of Wetlands of International Importance, which is maintained by a Bureau especially established for this purpose according to Article 8 of Ramsar. The inclusion of a wetland in this list does not prejudice the exclusive sovereign rights of the State Party in whose territory the wetland is situated. The Spanish Lagoon, an important mangrove area, has been the only Ramsar site in Aruba since 1980. Under Article 4 of Ramsar State Parties are required to ‘promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands, whether they are included in the List or not, and provide adequately for their wardening’.

The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention)

The Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention) aims to protect the marine environment of the Wider Caribbean Region through the development of specific protocols for an effective implementation of the Convention. The second protocol to the Cartagena convention, the Specially Protected Areas and Wildlife (SPAW) Protocol, provides implementation of Article 17 of the Cartagena Convention. The SPAW Protocol aims to protect, preserve and manage in a sustainable way areas and ecosystems that require protection and threatened or endangered species of flora and fauna and their habitats in the Wider Caribbean Region. Furthermore, it aims to protect species in general, with the objective of preventing them from becoming endangered or threatened.

Under Article 4 and 5 of the SPAW Protocol Parties are required to establish protected areas and take necessary and practicable measures to achieve the objectives for

which the projected area was established. Examples of measures to be taken for this purpose are: the regulation and prohibition of the dumping of waste, the regulation or prohibition of the introduction of non-indigenous species, and the regulation or prohibition of fishing and hunting. Both the Cartagena Convention and the SPAW Protocol are in force for Aruba. The SPAW Protocol is identified as a vehicle to guide and assist with the implementation of the broader obligations of the CBD.¹² Most of the provisions of the SPAW Protocol are congruent with the provisions of the CBD and contribute towards achieving the overall common objectives of both treaties. Article 25 of the SPAW Protocol provides that nothing in the Protocol is to be interpreted in a way that may affect the rights and obligations of Parties under CITES and the Bonn Convention.

The Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway

On the 14th of November 2014, The UN General Assembly (UNGA) adopted a resolution named the Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway. The SAMOA Pathway sheds new light on the particular challenges SIDS face in their effort to achieve their sustainable development goals. It notes how states can work together to further develop SIDS, by taking urgent action on climate change, adopting strategies for the promotion of renewable energy and by conservation and sustainable use of oceans and seas and their resources, amongst many other goals.

Furthermore, The SAMOA Pathway acknowledges that SIDS are home to some of the world’s most diverse ecosystems, and that their valuable biodiversity is at grave risk due to environmental degradation. It seeks to promote international cooperation, partnerships and information exchange to support SIDS efforts to:

¹² UNEP 2010, available from: http://car-spaw-rac.org/IMG/pdf/SPAW_Factsheet_jan_2009_E_.pdf (last visited on April 3, 2017).

- (1) Conserve biological diversity, the sustainable use of its components and equitable sharing of the benefits from the utilization of genetic resources;
- (2) To export organic, natural, sustainably produced and locally grown products;
- (3) To access financial and technical resources for the conservation and sustainable management of biodiversity.

Although not legally binding, the SAMOA Pathway represents political commitments and can serve as a framework to guide governments in their effort to achieve sustainable development. In the context of biodiversity conservation, the SAMOA Pathway can serve as a reinforcement of the obligations set out in the aforementioned treaties that are of relevance for biodiversity conservation.

National legal framework

Under the Constitution, Aruba has its own authority to establish (environmental) regulations. The most relevant environmental regulations in Aruba are the Nature Conservancy Ordinance (*Natuurbeschermingsverordening*) and the Marine Environment Ordinance (*Marien-milieuverordening*). Furthermore, the Spatial Development Ordinance (*Landsverordening Ruimtelijke Ontwikkeling*) may be used as a tool for biodiversity conservation.

The Nature Conservancy Ordinance (AB 1995 no. 2)

The Nature Conservancy Ordinance was adopted in 1995 to better align the protection of Aruba's ecosystems with economic developments. The Government hereby acknowledged that the possession of varied and attractive flora and fauna benefits both the local population and tourism, which remains one of the pillars of Aruba's economic

development.¹³ Furthermore, the Nature Conservancy Ordinance was intended to provide the government with instruments for the implementation of various international treaties or create a framework for doing so, including CITES, Ramsar, CBD, the Bonn Convention and the SPAW Protocol.¹⁴ Article 4 of the Nature Conservancy Ordinance makes a distinction between the fauna and flora on Aruba that are seriously threatened (paragraph 1) and those that are less seriously threatened (paragraph 2). Paragraph 1 provides that species of indigenous flora and fauna whose survival on Aruba is endangered, shall be designated by national decree. Paragraph 2 provides that the following may also be designated by national decree:

- 1) the species of indigenous flora and fauna whose presence in Aruba is so valuable that they require protection even though they are not endangered;
- 2) individual plants or groups of plants whose continued presence at a particular place in Aruba is desirable in the interests of nature conservation.

To date, implementation of paragraphs 1 and 2 by national decree has not taken place. A proposal of a National Decree for the purpose of protecting threatened and useful species of plants and animals has been submitted to the Government and is awaiting approval and implementation.¹⁵

Article 5 prohibits the export of a live specimen of an indigenous animal (or its eggs) or a plant belonging to a threatened or valuable species designated under article 4, paragraph 1 or 2. Under Article 6 paragraph 1 it is prohibited to kill or injure an indigenous animal belonging to a species designated under article 4, paragraph 1 or 2. Furthermore, under article 6 paragraph 2 it is prohibited

¹³ Explanatory Memorandum of the Nature Conservancy Ordinance, p. 1.

¹⁴ Explanatory Memorandum of the Nature Conservancy Ordinance, p. 2.

¹⁵ Stichting Rainbow Warriors International 2016, p. 22-23.

to remove or damage all or part of a plant belonging to a species designated under article 4, paragraph 1 or 2. Under Article 7 it is prohibited to destroy a nest or lair, and the eggs it contains, of an animal belonging to a species designated under article 4, paragraph 1 or 2. It is also prohibited to remove or have possession of the eggs of said animals.

Article 10 makes it possible to designate state-owned property, located on land or in the waters around Aruba, as nature reserves. Implementation of this Article can be used to provide special protection for designated nature reserves in compliance with Article 4 of the Ramsar Convention, Articles 4 and 8 of the SPAW Protocol, Article III (4) (a) of the Bonn Convention and Article 8 of the Convention on Biological Diversity. As an implementation of Article 10 of the Nature Conservancy Ordinance, Arikok National Park has been assigned as a nature reserve by National Decree in 2000.¹⁶ This Decree regulates management of the park, access to the park and prohibits certain activities in the park, namely the damaging of fauna and flora. By National Decree of March 31, 2017, the Spanish Lagoon, Aruba's only Ramsar site, was designated as a nature reserve and consequently became part of Arikok National Park.¹⁷ It is the intention that 19 other areas will be added to the Arikok National Park.¹⁸

Article 11 and 12 regulates the import and export of non-indigenous specimens as required by the CITES Convention and the SPAW-Protocol. Under Article 13 it is prohibited to kill or injure a non-indigenous animal

¹⁶ Landsbesluit Parke Nacional Arikok, AB 2000 no. 59.

¹⁷ Landsbesluit houdende algemene maatregelen van 10 februari 2017 tot wijziging van het Landsbesluit Parke Nacional Arikok (AB 2000 no. 59) (aanwijzing Spaans Lagoen-gebied als natuureservaat).

¹⁸ In 2012, Aruba Birdlife Conservation submitted a petition to the Parliament of Aruba to assign 16 areas as protected areas by adding them to National Park Arikok. On February 6th, 2013, 12 members of Parliament submitted a motion requesting the Government of Aruba to protect the areas indicated in the petition and to declare them as part of Parke Nacional Arikok. All 21 members of Parliament voted in favor of the motion.

of a species that appears in the appendices to the CITES Convention or the annexes to the SPAW Protocol. The *Landsbesluit CITES-register* (AB 1995 no. 69) is an implementation of article 16 of the Nature Conservancy Ordinance, which provides that registers will be kept of all live animals kept in captivity on Aruba, which either belong to a species protected under the Convention and the SPAW Protocol or which belong to a species designated under article 4 paragraph 1 and 2 of the Nature Conservancy Ordinance.

A breach of the various prohibitions provided by the Nature Conservancy Ordinance is considered a criminal offence. Article 19 attaches sanctions to the breach of the prohibitions provided by the Nature Conservancy Ordinance. The table hereafter provides an overview of the prohibited acts, classified according to the degree of criminality.

The Marine Environment Ordinance (AB 1980 no. 18)

According to Article 25 and 26 of the Nature Conservancy Ordinance, the Marine Environment Ordinance was scheduled to be withdrawn by subsequent National Decree. The reason for this was that the various instruments provided in the Marine Environment Ordinance are also included in the Nature Conservancy Ordinance, and would no longer be needed upon entry into force of the Nature Conservancy Ordinance. Such a National Decree for the purpose of withdrawing the Marine Environment Ordinance has never been implemented. Consequently, the Marine Environment Ordinance is still in force, together with a number of implementing decrees.

Article 5 of the Marine Environment Ordinance prohibits the killing of animals and/or plants from the waters of Aruba if such animals and/or plants are listed by subsequent National Decree. On the basis of the Marine Environment Ordinance, four National Decrees have been

implemented for the protection of the sea turtle (AB 1987 no. 51), the calco (AB 1987 no. 52), starfish (AB 1993 no. 49), corals (AB 1988 no. 52), and certain coral fish (AB 1992 no. 70). Furthermore, it is prohibited to sell, purchase, deliver, import, export, or possess such animals and/or their parts or products. The species protected in the Bonn Convention relevant to Aruba are protected under the Marine Environment Ordinance. A proposal of a National decree for the purpose of designating the west and south shores of Aruba as a Marine Park has been submitted to Parliament and is currently still awaiting approval and implementation. The Marine Environment Ordinance will be withdrawn as soon as the National Decree for the purpose of establishing a Marine Park is in force.¹⁹

The Spatial Development Ordinance (AB 2006 no. 38)

The Spatial Development Ordinance gives a framework for spatial planning in Aruba, and can function as an important tool for biodiversity conservation. On the basis of Article 4 of the Ordinance, a zoning plan was drafted and approved by the Aruban Government in 2008 for a period of 10 years. The zoning plan aims to provide a guideline for spatial development and designates regions for nature restoration, housing projects, economic expansion, agricultural development, infrastructure development, and so on. It does not, however, provide binding provisions for the use of the spaces. The Zoning Plan -in optima forma- is intended

Prohibited act	Pursuant article	Sanctions
Exporting a live specimen of an animal or plant designated as threatened or valuable under article 4 paragraph 1 and 2.	Article 5 paragraph 1	A maximum of 2 years in prison and/or a maximum fine of AWG 100.000,-
1. Killing or injuring an indigenous animal of a species designated as threatened or valuable under article 4 paragraph 1 and 2 2. Removing or damaging all or part of a plant belonging to a species designated as threatened or valuable under article 4 paragraph 1 and 2	Article 6 paragraph 1 and 2	A maximum of 2 years in prison and/or a maximum fine of AWG 100.000,-
The import or export of a specimen of a species listed in Appendices I and II to the CITES Convention or in the annexes to the SPAW Protocol	Article 11 paragraph 1	A maximum of 2 years in prison and/or a maximum fine of AWG 100.000,-
1. The import of a specimen of a species which has been included in Appendix III to the CITES Convention by a State Party other than Aruba, without the prior presentation of a valid certificate of origin. 2. The export of a specimen of a species which has been included in Appendix III to the Convention by a State Party other than Aruba, without the prior presentation of a permit from the Minister.	Article 12 paragraph 1 and 2	A maximum of 2 years in prison and/or a maximum fine of AWG 100.000,-
Killing or injuring a non-indigenous animal of a species that appears in the appendices to the CITES Convention or the annexes to the SPAW Protocol	Article 13	A maximum of 2 years in prison and/or a maximum fine of AWG 100.000,-
Exporting the eggs of an animal designated as threatened or valuable under article 4 paragraph 1 and 2	Article 5 paragraph 2	A maximum of 6 months in prison and/or a maximum fine of AWG 25.000,-
1. Destroying a nest or lair, and the eggs it contains, of an animal belonging to a species designated as threatened or valuable under article 4, paragraph 1 and 2. 2. Removing or having in possession the eggs of said animals	Article 7 paragraph 1 and 2	A maximum of 6 months in prison and/or a maximum fine of AWG 25.000,-
Possession of a specimen while the person in possession knows or should reasonably suspect that the specimen was imported in breach of article 11, paragraph 1, or article 12, paragraph 1.	Article 14	A maximum of 6 months in prison and/or a maximum fine of AWG 25.000,-
Capture or deliberately disturbing a wild animal belonging to a species designated as threatened or valuable under article 4, paragraph 1 and 2.	Article 7 paragraph 3	A maximum of 3 months in prison and/or a maximum fine of AWG 10.000,-
The possession of a live animal as referred to in article 16, paragraph 1 (a) or (b), without proof of registration of that animal in the relevant register.	Article 17 paragraph 1	A maximum of 3 months in prison and/or a maximum fine of AWG 10.000,-
The import, possession and use of certain means for capturing or killing animals, which have been prohibited by national decree (not being means used in the context of veterinary treatment). For example, certain means for underwater hunting are banned under the <i>Landsbesluit onderwaterjachtmiddelen</i> (AB 2001 no. 115)	Article 9	A maximum of 3 months in prison and/or a maximum fine of AWG 10.000,-

¹⁹ Stichting Rainbow Warriors International 2016, p. 23.

to provide sufficient juridical stronghold to maintain future spatial developments in Aruba in line with nature conservation efforts and sustainable growth of economic and social well-being.²⁰ The formalization of the Zoning Plan into binding rules and regulations that would provide juridical support and measures has proved to be difficult.²¹ The Spatial Development Ordinance and the corresponding Zoning Plan are examples of law-making where there is a gap between the legal intent of law-makers ('law in the books') and the implementation of the law ('law in action').

Discussion and Conclusion

The international attention to the importance of biodiversity conservation has led to the adoption of numerous international treaties, of which the Convention on Biological Diversity is the first international treaty to recognize the conservation of biological diversity as "a common concern of humankind" by providing a legal framework specifically for the purpose of biodiversity conservation. Other international agreements that are complementary to the CBD are the Cites Convention, the Ramsar Convention, the Bonn Convention, the Cartagena Convention (including the SPAW Protocol) and the SAMOA Pathway, a non-binding resolution adopted by the United Nations. The aforementioned treaties are already in force for Aruba, but most of them require implementation and enforcement of legislation before Aruba can accede to them. Progress towards the implementation of these treaties has taken place, but remains limited. For example, the implementation of the Nature Conservancy Ordinance is limited due to the fact that implementation by national decree of Article 4 paragraphs 1 and 2 has not taken place. As a result, the provisions in the Ordinance, which depend on such a national decree for their implementation, do not have any effect.

The national regulations that are of relevance for biodiversity conservation are the Nature Conservancy Ordinance, the Marine Environment Ordinance and the Spatial Planning Ordinance. These Ordinances are frameworks and therefore require implementation through the adoption of national decrees. Currently, these ordinances lack either implementation or enforcement. Two National Decree proposals are still awaiting approval and implementation by the Aruban Government, namely a proposal Decree for the establishment of a marine park (implementation of Article 10 of the Nature Conservancy Ordinance) and a proposal Decree to protect endangered and valuable plants and animals (implementation of Article 4 paragraph 1 and 2 of the Nature Conservancy Ordinance).

It is important to note that a law cannot be materially binding if it, or parts of it, have not been implemented. The existence of a law that has not been implemented or enforced might satisfy political conscience or a formal international obligation, yet it does not have any effect on the issues that it is supposed to deal with. Even if it initially may have some effect, this effect will disappear as soon as it becomes evident that the law will not be implemented or enforced. Consequently, if full implementation and enforcement of the aforementioned Ordinances does not take place, Aruba will not be able to accede to its international obligations under the relevant treaties. For Aruba to be able to accede to its international obligations under said treaties, it is therefore of vital importance that the enforcement of existing legislation takes place, where this is not the case. Furthermore, it is necessary that the implementation and enforcement of the National Decree for the establishment of a Marine Park and the National Decree to protect endangered and valuable plants and animals takes place.

²⁰ CBS 2016, p. 6.

²¹ CBS 2016, p. 6.

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Being plunged into this programme and learning about a single place and topic in such an intense manner has been a full experience. It has let me learn a lot about myself and the way the world works. This being my first visit to the Americas, I've been incredibly happy to learn about the history and culture of the many different people that live here. I've been stimulated intellectually and artistically, as living near beaches for the first time and being dedicated to a single project has really gotten me thinking. The hours spent writing about my thoughts and taking pictures of Aruba let me leave the island with more than just memories. But the memories are what will really stick. The calypso events, the nights spent talking with Juan and Sebastien in Spanish, which I don't really speak, exploring the peculiar rocky landscapes of Arikok and the northern coast, and spending lots of time at Arashi.

I couldn't thank the people who I've interviewed enough. Ginely and Clifford at Stichiting Rancho are really

doing amazing work in preserving the history and culture of Aruba, and spending time and learning about Rancho has made me learn a great deal. I have a deep respect for the initiatives that I was lucky to find here in Aruba. Christie and Tom, Jamal, Anita, people keep telling me that whoever finds solutions to solid waste management in Aruba will be rich, or famous. You are the solution. Your projects are showing Arubans what it takes to recycle. Aruba has a great deal of potential. Trash might be a complicated issue, but waste itself is actually of great value, just ask the Swedish, or trash pickers in Thailand.

I hope to come back to this island, and see community initiatives striving, and trash in its proper place. In any case, this place has taught me a lot. I want to particularly thank Eric and Jocelyn for creating this one of a kind program, of course without you none of us would be doing this. Every year you're creating a group of academics that look at research in a different way, for its true value in contributing to knowledge and creating data that can actually be used by communities to improve their world. Having said that, I am also deeply grateful for those in the UAUCU project who have shared this time with me. Aruba, good bye, and thanks for all the fish!

Community Participation in Solid Waste Management in Aruba

by Ben Bultrini

Introduction

As the United Nations and its member states dedicate themselves to creating a sustainable future for the citizens of the globe, it is crucial to understand where we stand today. The global capitalist market system requires heavy consumption of goods produced in one or more countries and consumed in another. One of the major byproducts of this system is solid waste. Solid waste is defined as waste in solid form, discharged from production, business, service, daily life or other activities. Solid waste management (SWM) constitutes how this waste is managed. The issue of waste is becoming more critical as developing states increase in population, and the tourism industry imports consumption-heavy practices. Solid waste is a concern for public health as it affects water, land, air, and all living things.

Increasing waste generation is becoming a major concern for Small Island Developing States, which are particularly challenged by this issue given their vulnerabilities. Small Island Developing States (SIDS) are a group of around 52 developing countries that share similarities in terms of size, remoteness, and dependence on the international market, amongst other characteristics. The limited space in SIDS accentuates problems with waste accumulation. Many SIDS have not been able to

find sustainable solutions to SWM problems. This has to do with the complexity of SWM, which necessitates an understanding of socio-cultural contexts beyond the political, economic, social and environmental realms (Fruitema, 2015).

The public is ultimately the principal bearer of environmental effects and degradation, therefore their involvement is essential in development efforts (UNEP, 1972). Governance systems across the globe are embracing participative, people centered approaches to better distribute the share of governing responsibilities and increase efficiency and effectiveness (Potter et al, 2004). As SWM is a representative and highly visible public service, gathering data on solid waste provides a strong reflection of dynamic urban activities. Understanding the state of SWM in a place relates to the state of governance in a territory as a whole. The aim of this paper is to create meaningful data in SIDS, with Aruba as the focus.

Aruba, located juts off the coast of Venezuela, is a multi-cultural and multi-lingual state in the Kingdom of the Netherlands. After mining of gold and phosphate, combined with Aloe growing under Dutch occupation, Aruba was a fishing and agricultural island. In the 1920s, oil refining became the inhabitants' focus, driving the economy until the closing of the Lago refinery in 1985. With the

refinery's closure, unemployment suddenly rose to 30-40% (Ridderstaat, 2007). In 1986, Aruba achieved *status aparte*, becoming a constituent country within the Kingdom of the Netherlands. The island then embraced tourism as its future, and became a major tourist destination. In the past three decades, tourism has been a major pressure on public services. SWM remains a major challenge for this SIDS and may put the future of tourism at risk. This paper will explore community participation in SWM by identifying Aruba's current governance structures and the island's lacunas regarding community participation. Furthermore, some examples of community-led SWM initiatives will be explored. The aim of this paper is to answer the following question: *In what ways can community participation be effective in solving SWM issues in Aruba?*

Governance: the distribution of power in decision-making

Governance can be seen as the process by which power is administered in a system of rule. From early conceptions of governance as primarily autocratic, structures of decision-making have become increasingly complex and inclusive (Michalski, Miller, & Stevens, 2001, p. 2). The organised state and its institutions have allowed society's wealthy and noble to influence decisions on such questions as the levying taxes. The permeation of democratic thought in Western society further expanded the scope of government and the number of actors involved, leading to greater accountability of the governors.

Throughout the nineteenth and twentieth centuries, the use and relevance of the term governance has grown, with little consensus on its definition having emerged (Committee of Experts on Public Administration, 2006, p. 2). One thing that is clear is that the term is associated with more than just government. Multi-level governance in particular emphasises the participation of non-state actors in decision-making (Newig and Fritsch, 2010). Governance

thus reflects the changing relations between the State and civil society.

Civil society is consciously external to the State, either in the private sector or civil organisation. Civil society thus strives to hold those in power accountable and is capable of resisting undemocratic regimes (Newig and Fritsch, p. 9). On the other hand, a community constitutes a more manageable group of commonly identifying peoples. Governance is often used to promote coordination and coherence between various actors from the political to the non-governmental and increasingly on multiple spatial scales (Pierre, *Debating Governance: Authority, Steering, and Democracy*, 2000).

It is important to note that due to the nature of governance as complex and broadly-defined, the concept is highly contextual. It can be applied to public and non-public sector, or a combination thereof, with processes and practices that vary vastly throughout (Institute on Governance, 2002, p. 2). Some theorists put the focus of governance on the state, which indeed, is usually the largest singular governing a body-politic (Pierre & Peters, 2000). Nonetheless, the state is almost never the exclusive possessor of governing power. Corporate entities, organised syndicates, and others hold increasingly significant local, national and international influence. These actors may also collude with the state, a common practice in the realm of waste (Bel & Warner, 2008).

Perroux (1960) and Boulding (1970) provide a useful conceptual grouping of 'ensembles of organisations': quid pro quo exchange (market economy), coercion (polity), and solidarity (community and society). Through time, the three 'coevolve', and shift power between each other. Since 1648, the Westphalian nation state, which focuses on coercion, has been the dominant form of territorial governance in the west and in post-colonial societies. The dominance of the Westphalian nation state

is being challenged by pressure from civil society. Their frustrations pertain to the diminishing capacity for nation states to effectively govern given the accelerating mobility of the factors of production (Parnwell, 2013, p. 183). This has given rise to more distributive governance arrangements which share power between the three ensembles of organisations. Consequently, a growing number of meso-level organisations tie them together. Deregulation policies since the 1970s have delivered a large portion of governing power to the market economy sector, leaving a gap of power in the community and society sector.

The ensembles of organisations do not accommodate for different scales within the coercive state. Neil Brenner writes about the rescaling of statehood, an idea that explains the growing role of urban governance in state space (2004). He reaffirms the shift away from the Keynesian welfare state to what he calls 'rescaled competition state regimes' (RCSRs). He argues that administrative uniformity, territorial equalization, and centralization of decision-making at the national level have given way, resulting in the emergence of new scales of differentiated governance. In these new state spaces administration is customized to local conditions and investments are more than ever dependent upon local regulatory regimes. On a scalar level, decision-making is decentralized and the scales of governance are heightened and rearranged (Walks, 2008). These added layers of governance on an urban level are further composited by meso-level bodies such as supranational organizations, which have gained immense amounts of power since World War II (Guzman, 2013).

After the Cold War, the World Bank and IMF tied political, economic and administrative reforms to financial aid in the countries of the former Union of Soviet Socialist Republics and other developing states (Committee of Experts on Public Administration, 2006, p. 3). These U.S.-led institutions used adjustment measures to propagate economic liberalisation globally and soon after, political

conditions characteristic of 'good governance' (Simon, 2008). There are thus clear undertones of ideological superiority associated with governance and the spread of 'good governance.' Nonetheless, the universal applicability of good governance principles makes them an attractive tool to assess and plan governing bodies or structures. Surendra Munshi (2004) provides an operational definition:

"[Good governance] signifies a participative manner of governing that functions in a responsible, accountable and transparent manner based on the principles of efficiency, legitimacy and consensus for the purpose of promoting the rights of individual citizens and the public interest, thus indicating the exercise of political will for ensuring the material welfare of society and sustainable development with social justice."

Uses of 'good governance' mechanisms represent the long run trend of a more distributed capacity for effective action (OECD, 2001, p. 12). This paper will discuss how participatory development may provide a means of achieving principles such as those of accountability, transparency, efficiency and legitimacy. It must be noted that these terms are sometimes used as verbal padding and their meanings pursued only in part or in their most basic forms, in an attempt to deceive or appease civil society. The lack of a clear and narrow definition serves to this effect. The best way to understand governance is to apply the concept to a certain focus. Waste management appropriately falls under the umbrella of environmental governance.

Environmental governance in Small Island Developing States

Waste, just as fisheries or gold mines, is a manageable resource. Governance at all levels has been used to manage resources and guide management efforts towards

sustainable development (UNCED, 1994). Environmental governance refers to the formulation and implementation of legal tools, policies, institutions and practices aimed at a state's resources. This is carried out through the cooperation of a variety of actors, taking into account social, cultural and economic contexts (Singh, 2014).

The UN has established much of the international instruments for environmental governance, now geared towards achieving the Sustainable Development Goals (SDGs). A variety of bodies such as the UNEP, World Bank, a multitude of commissions, and committees all work towards achieving common aims set out in different UN conferences. The system is highly complex and fragmented, with common overlaps, and often conflicting priorities (Chambers & Green, 2005). This has serious implications for SIDS, and other small developing countries, which are essentially trapped within this massive web of supranational bodies and agreements. Notwithstanding, SIDS play an increasingly important role within these bodies as some of the most vulnerable of countries in the world. This is especially true regarding conventions on the marine environment.

On the first of January 2016, 17 non-legally binding SDGs of the 2030 Agenda for Sustainable Development were put into force (UN, 2016). Individual countries have the responsibility to apply these goals. While many of the SDGs tie in with solid waste management, there are two that are directly related to the issue. SDG 11, Sustainable Cities and Communities, outlines target 11.6 indicating that “by 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management”. SDG 12, named ‘Responsible Consumption and Production’ is focused entirely on reducing environmental effects of the world's consumption and production through reducing the amount of material demanded, recycling, and education (UN Department of Economic and Social Affairs, 2017).

The world's SIDS face particular challenges in achieving these goals.

Environmental Governance Challenges for SIDS: Solid Waste

SIDS have managed to make their mark on global governance by highlighting their vulnerabilities related to climate change and rising sea levels. Due to their size, colonial histories, and other factors, SIDS encounter unique sets of challenges in enacting good environmental governance. These challenges, listed below, will be applied to the case of Aruba in order to discuss governance challenges for SWM.

Development and policy: “Low political will to solve environmental problems and the failure of policy makers to link development, economic growth and overall human wellbeing to general and intrinsic values of the environment” (Singh, 2014, p. 606). International pressure for competitiveness in the global market pushes SIDS towards extensive economic growth, which leads to environmental degradation and a lacking development of the necessary environmental governance tools. This is connected to economic vulnerability, which often manifests itself in a dependency on tourism. Policy reforms are often done on an organisational, ministerial and departmental level, meaning that systemic transformations cannot be achieved (Singh, 2014, p. 612). Another public administration problem in SIDS is that people know each other well, and are often related to each other. This tends to work against impartiality and efficiency in civil service, and against a merit based recruitment and promotions policy (Briguglio, 1995).

Science-Policy interface “Sound environmental governance requires an understanding of the complexities and dynamic interactions of the environment, its services and functions and resilience. In addition, the existing

linkages and synergies must be appreciated and reflected in policy and decision-making. Therefore, there must be an ever-present effort at all levels of governance to gather and use information. Very often, scientific advice and information are not incorporated much into environmental policies in the way that will bring about the required changes and policy shifts required” (Singh, 2014, p. 609).

Financial resources: There is a lack of appropriate, continued funding to ensure accountability for the legal and regulatory framework of SWM (Riquelme, Méndez & Smith, 2016). Limited financial resources for investment in environmental initiatives hinders the ability of SIDS to solve emerging long term issues such as SWM (Singh, 2014). A limitation of natural resources creates challenges for production and the development of domestic markets, thereby limiting indigenous profit generation. Thus, SIDS may be dependent on foreign sources of finance including development assistance and foreign investments (Briguglio, 1995).

Size: Small domestic markets create a dependency on goods imports, thus limiting SIDS’ ability to affect domestic prices. Potential economies of scale are also limited. Oftentimes, people know each other well or are related to each other, creating impartiality issues and limiting merit-based recruitment in public administration. In addition, limited diplomats and representatives to send abroad for conferences is a disadvantage in the international political sphere (Briguglio, p.1617-1618). In addition, there is scarcity of land availability for landfills and other SWM sites. This is exacerbated by Not In My Back Yard (NIMBY) attitudes. SIDS’ size means that the import-to-GDP ratio is very high. With limited foreign exchange reserves, SIDS have limited access to materials for waste management projects (Periathamby & Herat, 2014).

Remoteness: The insularity of SIDS constrains transport options to sea and air. Furthermore, small orders

and the fragmentation of imports result in relatively higher per-unit transport costs for SIDS. Import delays and uncertainty are quite common, making the procurement of specialised equipment difficult (Briguglio, 1995).

Institutional and human capacity: ‘Braindrains’ from SIDS are common, whereby those with better opportunities and skilled workers move abroad. With limited human capital development, SIDS have a lack of worker capacity and must import temporary workers in times of economic prosperity. It is often that case that institutions working on SWM do not have clearly defined roles. Institutional capacity to effectively enforce SWM laws and penalties is also limited (Singh, 2014; Riquelme, Méndez & Smith, 2016; Periathamby & Herat, 2014).

Coordination and Integration: “Generally the pace of success by which resource management consideration is integrated into mainstream policies among key stakeholders is slow and one of the reasons arguably is the amount of organizations and the level of coordination among them. Many SIDS find it challenging to organize fewer, more strategic institutions to deal with ‘integrated resource management issues’... What therefore is achieved is superficial progress with little policy and governance changes” (Singh, 2014, p. 608). Lack of coordination in SWM is detrimental to the sector’s efficiency.

Governments have the choice of how they approach solving these issues and organising their governance structures. They can employ a centralised or decentralised approach to environmental governance and waste. Having discussed the trajectory of governance theories, the relationship between development theory and inclusive governance can be assessed. Participatory, bottom-up development and the idea of community participation are important in this debate.

Participatory, bottom-up development

Top-down policies for development enacted by the state are often said to fail to meet local communities' needs and wants (Mohan, 2001; Parnwell, 2013). The classical-traditional approach equates development to modernity, pushing forth a Western agenda of development whereby paternalistic decisions on civil society are taken without incorporating local contexts (Mohan, 2001; Parnwell, 2013). Discussions on development have undergone a shift from catch-all theories to more localised empirical approaches. Heterodox viewpoints have also arisen which emphasize the exploitation of citizens at the receiving end of the development system. André Gunder Frank stated that there was a "development of underdevelopment", whereby capitalist 'core' countries caused underdevelopment and dependency in Latin America. These so-called 'radical' approaches gave space for 'alternative' people-based approaches to development.

The 1980s saw the neoliberal doctrine of market deregulation being spread by development agencies such as the IMF and the World Bank. These agencies placed institutional reform and a social agenda as conditions for loans in many developing states. Activists and the growing number of NGOs in the development field, critiqued the western-centric development paradigms propagated by these agencies. Activists advocated for grassroots approaches, calling for community empowerment and capacity building on the local and regional level (Potter et al., 2012). As a result, the World Bank included 'good governance' clauses in development aid packages, incorporating 'participation' into development practice (Mohan and Stokke 2000) Thus, in the 1990s, participatory, 'bottom-up' development (PD) theories were incorporated into mainstream development thinking. PD reverses the direction of decisions in order to localise and empower communities, in particular the poor/marginalised majorities. This way,

basic needs of people are met, and the goal becomes self-reliance of communities.

As controlling the means of production is essential to self-empowerment, many heterodox development theorists have applied Marxist ideas, emphasizing the need of communities to take control over their resources (Potter et al., 2012). More humanistic theories have come out of this train of thought, leading to concepts such as 'real life economics' or 'Buddhist economics', which take development to include day-to-day economics, ethics, environmentalism and sustainable development. PD focuses in large part on capacity building and especially women's empowerment. Examples of grassroots development initiatives include projects such as the Grameen bank for microfinancing, aimed at supplying women with the funds to invest in their business or communities (Potter et al., 2012, p. 96).

An issue with PD is that some NGOs may seem participatory whereas in reality they are following traditional development practices. Furthermore, it may put such a strong focus on the local, and small scale projects, that national and global structures remain unchanged. This can lead to a limited potential for large scale change, as a lot of issues may not be tackled only at a local level. However, PD facilitated by governments makes the public sphere more accountable to its citizens through cooperation and partnerships between the politic and the body-politic. PD initiatives are thus also starting to concentrate on strengthening state capacity, and campaigning to reform global governance structures (Mohan, 2001).

Community participation

Sharing the benefits of development is the aim of distributing decision-making to the community. Oakley and Marsden (1984) suggested that meaningful

participation is concerned with achieving power to influence the decisions that affect one's livelihood. Community participation can be state-initiated or taken up in a grassroots manner. Community organisations attempt to mobilise social and human capital to empower the powerless. It is important to pay attention to the societal structures that may influence these organisations, such as the overrepresentation of men (Desai, 2013).

These community organisations require leaders, often times being those who have the time and capital to dedicate themselves to such organisations. Therefore, these leaders tend to be the richer members of a community. For instance, the privatisation of waste management may put control of waste in a single member of a community or in a single clique. This effectively involves community members, but does not allow representation of the wider community in decision-making (Bel & Warner, 2008). For real community participation, the state must be ready to significantly alter its structure. If done appropriately, this can make the government accountable to its citizens in a democratic manner. In turn, this can increase the effectiveness of its programmes on civil society. However, it may be necessary for a private sector push to 'jolt' the system. This stands in opposition to incremental nudges which do not challenge the institutional stasis of government.

The literature describes many benefits of a participatory processes in waste management. On a practical level, conflicts between interest groups are characteristic of waste management, given that some groups do not have their interests and concerns attended to in decision-making processes. If a participatory approach is taken from the first stage of waste management projects, the possibility for conflicts may be reduced (Salhofer et al., 2007). By establishing explicit

shared rules and preferences from the beginning of the procedure, the different objectives of participating parties can be aligned to avoid changing of the project criteria in later stages (Salhofer et al., 2007; De Marchi et al., 2000; Pires et al., 2011). In a comparative statistical analysis testing hypotheses on participatory multi-level environmental governance, Newig and Fritsch found strong correlations between environmental standards of policy outputs and the number of governance actors involved (2010). They also saw involvement procedures positively influence acceptance of policy decisions, which is a precursor to "compliance and swifter implementation" (2010, p.10).

The tenth principle of the Rio Declaration on Environment and Development reveals the often limited view governing bodies have on community participation. The principle highlights the 'availability and access to information', which is essential but can be argued to be participation only at a basic level (UNEP, 1972).¹ Arnstein's 'Ladder of Citizen Participation' model, proves a useful tool to conceptualize levels of community participation, albeit in a simplified manner (1969). As illustrated in the below figure, the ladder consists of eight gradations from manipulation to citizen control, divided into three sections of increasing citizen involvement: nonparticipation, degrees of tokenism and degrees of citizen power.

¹ Principle 10 of the Rio Declaration on Environment and Development: "Environmental issues are best handled with the participation of all concerned citizens, on a relevant level. On a national basis, each individual should have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States should facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy should be provided."

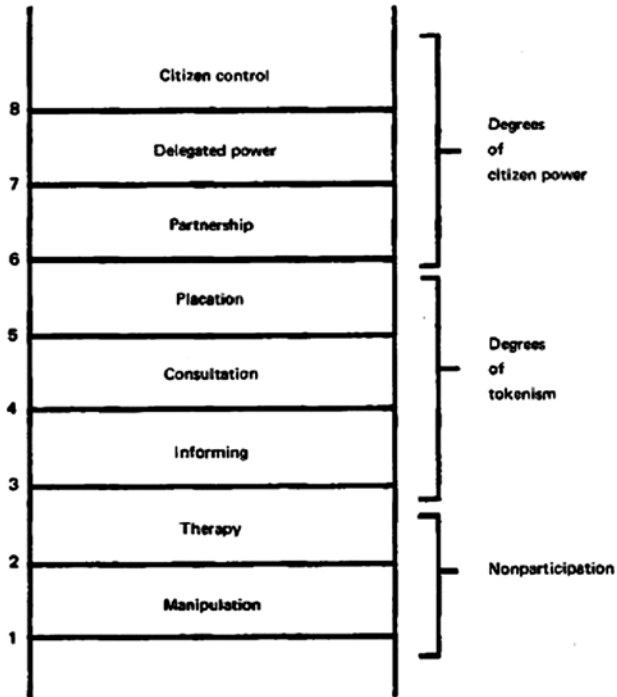


Figure. 2: *Eight rungs on a Ladder of Citizen Participation* (Arnstein, 1969)

The first two ‘nonparticipation’ rungs constitute when those in power educate or cure citizens, perhaps under the guise of participation. ‘Informing’ is the first step to participation since it implies some transparency and citizen knowledge on what is occurring. The two following steps describe when the ‘have nots’ are given a voice without ensuring any action or follow through by powerholders. These can be manifested in ‘stakeholder’ events or committees. If a partnership were to be employed, citizens would obtain real power in decision-making, as it allows for the majority to negotiate and have trade-offs with powerholders. Delegated power, and citizen control, place community actors in positions of power. This means that majority of decision-making seats are distributed

to the community or they are given full managerial control (Arnstein, 1969). The extent to which Aruba has incorporated community participation in its SWM will be assessed, taking into account this model.

Methods

Qualitative methods were employed to research community participation in the management of Aruba’s solid waste. A literature review provides the theoretical framework and concepts for this research. The main methodologies to acquire primary data were semi-structured interviews and participant observation. Gathering primary data on SWM in Aruba is of utter importance given the current limited availability of data on the subject. Furthermore, secondary sources from previous research, NGOs, waste management companies and government agencies, provide some data and information on solid waste and the institutional bodies, policies and laws designed to handle solid waste.

To create an account of the state of affairs with regards to community participation in Aruba’s SWM, a community-based research approach was used. This method is adapted to the field of solid waste from the field of public health (Israel, 2000; Higgins, 2001). Community-based research aims to create knowledge on the extent to which community members are involved in the policy and waste disposal process. It also addresses the ways in which individuals and groups contribute to waste generation and are engaged with solving the mismanagement of solid waste. The results of this investigation will be used to reach conclusions regarding the status of community participation in SWM in Aruba using indicators taken from literature on general governance theory, participatory development theory, and the particular issues of environmental governance in SIDS.

This research employed participative observation to allow for a deeper understanding of the state of solid

waste management in Aruba. More specifically, the research included observation of public spaces, (legal and illegal) solid waste disposal sites, general waste practices and participation of the researcher in some bottom-up waste management initiatives. These observations serve to validate data from interviews and secondary sources.

Semi-structured interviews served to discuss and elaborate information about solid waste management from those who work or are involved in the field. The interviews lasted from 20-100 minute and were conducted in English. The interviewees can be categorised as either heads of government departments, those running community-based, private waste management initiatives, and members of civil society. The first group sheds light on current top-down approaches to SWM and the potential for the top-down strengthening of bottom-up initiatives. The second group provides some best practices in bottom-up, community-based initiatives that contribute to finding solutions for waste issues on the island.

The third group of interviewees were part of a case study of Rancho, a neighbourhood in Aruba's capital city of Oranjestad. This neighbourhood was chosen because of its particular issues with litter. The method for this round draws from community-based participatory research approaches for public health (Higgins & Metzler, 2001; Israel, 2000). Neighbourhood walks by key informants served to enhance understanding of context. Questions for interviewees were developed in cooperation with Stichting Rancho, a local organization working towards the preservation of cultural heritage. The leaders of Stichting Rancho helped conduct interviews, partly by translating from English to Papiamentu. Both businesses and individuals were approached and interviewed for ten to twenty minutes. These interviews serve to gain local perspectives in order to report on the perceptions and issues concerning SWM in communities. Anonymity was assured for all key informants, thus the below table

provides codes and the respondents' affiliation. The format for arranging codes is adapted from (van Bets, Lemers and Tatenhove, 2016).

Code Interviews

<i>I-G I-4</i>	Public officials Bureau City Inspector (BCI) Department of Nature & Environment (DNM) Serlimar Arikok National Park
<i>I-CB I-3</i>	Community-based SWM initiatives Makerspace and plastic recycling facility Tyre-to-energy & export company Regatta
<i>I-CS I-14</i>	Civil society Local businesses in Rancho (6) Local inhabitants of Rancho (4) Stichting Rancho Environmental NGO Professor at University of Aruba Students (2)

Community-based research

Gathering knowledge and "local theories" from community members furthers the quality, validity and relevance of this study (Elden & Levin, 1991). Collaborating with the community and forming valuable relationships between researcher and respondents may help overcome possible distrust of researchers by communities (Israel, 2000). The findings of this study will be distributed to respondents and disseminated by community members (Israel, 2000). Researchers and respondents then attempt to use information gathered to positively influence intervention and policy efforts for change (Schulz et al., 1998; Israel, 2000). Thus, this research aims to improve the waste situation in communities involved and for Aruba as a whole by examining and reporting on issues brought forward by community actors.

Limitations

Because of the limited time-frame, budget and capacity of this research, a full community-based participatory approach was not employed. For the designing of this research, community actors could have played a greater role in all decision making steps of this research, as outlined by Israel (2000). The fact that community members were not involved in the research design limits the potential for action and implementation of recommendations made in this paper.

Furthermore, language posed a substantial limitation for this research. Most people that were approached for interviews were proficient in English. However, Aruban news is reported mostly in the local language of Papiamentu and Dutch, making it difficult to explore local media. The biggest challenge lies in reading policies and laws, which are written in Dutch, necessitating their translation or the gathering of information from secondary sources.

Interviews in Rancho did not cover its whole geographical boundary, and thus generalisations may not be applicable to the full community. The use of English, and in one case French, as the language in which interviews were conducted limited the diversity of interviewees.

State of Solid Waste Management in Aruba

Almost all Caribbean countries had indigenous economies related to agricultural and/or maritime activities (Kinnaman, 2010). Aruban neighbourhoods such as Rancho used to have fishing communities and others relied on manufacturing activity, including rice milling and the production of lime for construction (I-CB-1; I-CB-2; I-CS-11). With the rise of the successive closures of the oil refinery, fundamental changes in the global distribution of labour, and the rise of the tourism sector, there has been

a significant decline in Aruban manufacturing. Population growth resulting from the tourism boom after the 1960s put public services under intense pressure (Murphy, 2009). Tourism has brought and environmental degradation and the societal effects of conspicuous consumption (Cuccia & Rizzo, 2011). The Aruban government in power since 2009 has acknowledged issues around current tourism practices and has proclaimed efforts for change, seemingly following discussed shifts in development thinking. As a SIDS, the Aruban government controls municipal, national and international affairs.

The government of Aruba is pursuing a 'green' agenda, under its 2020 Vision for a sustainable Aruba. The Prime Minister Mike G. Eman states, "Aruba's strategic transformation [...] towards long term gain investments in city and neighbourhood renewal, citizen engagement and overall wellbeing" (Government of Aruba, 2016). Through several flagship development projects, Aruba is attempting to alter its position in the global hierarchy, and to make itself a 'gateway' in the Caribbean region (Government of Aruba, 2016). Establishing the Caribbean's first Waste-to-Energy plant fits within this vision. However, the current state of SWM in Aruba presents some serious challenges for sustainable development.

SWM Laws

Laws regarding SWM in Aruba are critically limited (Caceres, 2015; I-G-1; I-G-2; I-G-3; I-CB-1; I-CB-2). Most laws on solid waste are found in the *Algemene Politie Verordening* (APV). These laws dictate that waste cannot be accumulated on public spaces, that citizens are responsible for cleaning their private properties, and that waste must be transported a certain way. Waste collection is allowed to be administered by the publicly owned entity Serlimar Sui Generis and the private company Ecotech N.V (Caceres, 2015). Waste disposal is allowed only in dumps designated by the Minister of Public Health, namely

Parkietenbos and Jaburibari, the latter of which is no longer in use (I-G-3). Parkietenbos is managed by Serlimar. In June 2016, the Aruban parliament passed a law banning plastic bags, which was put into force on January 1st, 2017 (Carvalho, 2016). Depending on which, the infringement of these laws could amount to six months' imprisonment or a maximum fine of 10,000 Aruban Florin (\$5587 USD) (Caceres, 2015). These laws do not elaborate enough on necessary aspects such as non-household waste and lack enforcement mechanisms.

The Place of Solid Waste

In 2011, Serlimar opened the Parkietenbos landfill and container park, known as 'the dump' and situated just east of the Queen Beatrix International Airport. There is virtually no separation of waste entering the dump (I-G-3). The low environmental standards of this open-air landfill lead to damaging effects to neighbouring vegetation. Serlimar planned to close Parkietenbos around 2011 as the dump had already reached full capacity in 2005/6. Since then, its boundaries have been expanded (I-G-3). Loosveld (2015) found that trash, mainly consisting of soft plastics, was found in plentiful amounts outside the borders of the landfill. The dump also lowers the pH and vegetation growth of the neighbouring mangrove forest. As the dump is located on the coastline, much trash ends up in the nearby reefs and mangroves. It is likely that chemical and hazardous waste is leaking into the left side of the dump. As an open-air dump, Parkietenbos releases fumes caused by heat or the illegal burning of mostly plant waste. These toxic fumes contribute to air pollution and are a serious health hazard for inhabitants of the area and the workers at the dump (I-CB-1; I-CS-13). There is some measure of political will to close Parkietenbos, with legislation currently being discussed in the Aruban Parliament. Hitherto, no appropriate alternatives to the dump have yet to be conceived of (I-G-3).

Besides Parkietenbos, Aruba is laden with over sixty illegal dumps (I-G-1, I-G-2, I-G-3). The biggest dumps are in private or public land that has been excavated for sand or rocks and subsequently filled with trash. Sometimes land owners illegally charge people to dump in these areas (I-G-2; I-CS-12). Littering and dumping activity also occurs in urban spaces, on the side of a road or alley or in the vegetation spanning the island. Abandoned car frames are frequently seen throughout Aruba, sometimes having been set on fire and left to waste. In addition, there are hundreds of abandoned buildings, the effect of which will be discussed in the neighbourhood case study.

De Scisciolo et al (2015) have documented the difference in waste quantities and source on the north and south coasts of Aruba. The north coastline, windward, is exposed to the Caribbean currents and collects a lot of trash from abroad. The south coastline, leeward, is protected from the current, with more of its trash being of local origin. The north coast is almost uninhabited, necessitating a different approach in waste management. The authorities of *Parke Nacional Arikok* conduct ad-hoc, semi-regular beach clean-ups within the park's borders (I-G-4). Apart from these clean-ups, there is no government-led cleaning of trash on the northern coast. The DOW, Aruba's Department of Public Works, and the island's many hotels organize cleanings of the major touristic beaches on the southern coast (Jacobs, 2015). The remainder of the north coast outside of *Parke Nacional Arikok's* borders does not contain touristic beaches. Thus, there is a lack of incentive to regularly clean the area. There are a growing number of organisations which hold communal clean-up events throughout the year (I-CS-11). This is evidence of the Aruban citizenry becoming more conscious of the importance of their island's cleanliness.

SWM Policy

The *Directie Natuur & Milieu* (DNM) is the directorate charged with policy-making in the field of nature

and environment. In addition to environmental inspection, the DNM's tasks include research and monitoring. However, authority is linked to the directorate as a whole and not with individuals working there. This means that the functionaries can only forward reports to prosecutors and cannot act on their findings. The Minister of Environment could enact a shift of authority from the directorate itself to DNM's employees. The DNM has been anticipating this shift for the past five years (I-G-2). During these past five years, the *Landsverordening Milieubeheer*, a policy proposed by the DNM, has not been passed by parliament. Caceres (2015) states that this proposed policy would fill many of the existing gaps in SWM policy. A further limitation to the DNM's effectiveness is its' chronic under-staffing (I-G-2; I-CB-1).

Solid waste is DNM's main priority, such having been decided during a stakeholder event where the directorate invited environmental and economic NGOs to contribute to the ranking of policy priorities (I-G-2). This stakeholder event constitutes a consultation on the ladder of community participation, a tokenistic gesture according to Sherry (1969). Nonetheless, given the limitations of DNM in terms of its size and budget, such ad-hoc meetings must be recognized as a strong step towards inclusivity and participatory development.

Governments can solidify power by influencing structural norms and practices, which in turn limits the public's eye to a scope of 'safe,' inoffensive issues (Bachrach and Baratz, 1962, p.948). The practice of limiting decision-making scope to such issues is in actuality a form of non-decision-making. Such is achieved by "manipulating dominant community values, myths, and political institutions and procedures" (Bachrach and Baratz, p. 642). SW is clearly an issue in Aruba, but the way it has been approached by the government lacks nuance and has suppressed changing structures of SWM. Non-decision-making thus appropriately describes the approach taken by the Government of Aruba.

Serlimar, DOW, and civil society

Serlimar and DOW have the task of maintaining a clean living environment in Aruba. There is some contestation over the jurisdiction of these two entities as a result of a lack of clarity in the legislation. In practice, Serlimar is responsible for keeping residential areas clean and DOW is responsible for the island's main roads and touristic areas. Both organizations give more attention to areas with a concentrated presence of tourism. Serlimar collects waste from around 35-40,000 households, with Ecotech servicing the remainder of households (I-G-3). Serlimar began charging for household collection in 2014, but the majority of their clients do not pay these fees (I-G-3). Despite this, Serlimar continues to collect trash from all accessible Serlimar bins on the curb. That said, larger items must be brought by the client directly to the Parkietenbos landfill. As the non-paying clients do not want to make contact with Serlimar agents, there has been an increase in illegal dumping since the implementation of fees (I-G-3; I-CS-4; I-CS-10). An assessment and revision of collection prices may be necessary to counteract this.

Aside from paying collection fees, greater participation of the community in waste collection has the potential to bring about waste separation. There appear to be two main barriers to achieving waste separation: hotel managers and politicians who see it as an unpopular policy (I-G-2). In addition, with recycling facilities Aruba would see more waste scavengers, as there are in countries such as Thailand. Waste scavenging can help low-wage earning individuals to supplement their incomes by selling scavenged recyclables. DOW has a policy whereby it employs citizens with pick-up trucks to clean public areas with the focus on cleaning overgrowing vegetation (I-G-1, I-CS-3; I-CS-11). With regard to Serlimar's decision-making structures, civil society as a whole is not included. This is evidenced by the privatization procedure which created the space for Ecotech to emerge. The privatization legislation passed the

Aruban Parliament in 2004, but lacked consultation with stakeholders (Warriors, 2005). More research should be conducted to discern the participative aspects of DOW and Serlimar's decision making.

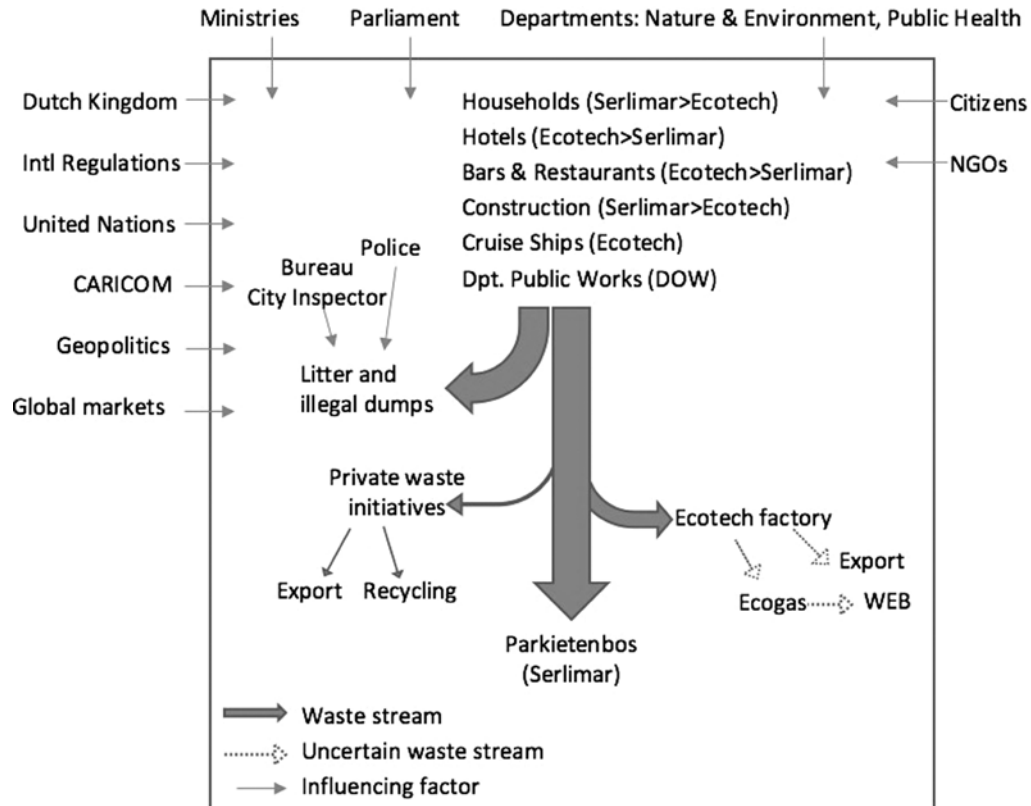


Figure 3. A flow of SWM in Aruba, with most relevant actors. Waste is produced by a representative list of groups, with specification to the responsible waste collection company. Waste is either illegally dumped, sent to the landfill, or stored in the Ecotech factory for potential export or energy recovery. A small part gets exported or recycled privately. Outside the box, national and international factors influencing SWM in Aruba are listed. Some have more influence than others. The size of inner arrows provides an indication of the size of flows but should not be taken as exact measures.

Enforcement: Bureau City Inspector

SWM laws are severely under-enforced in Aruba (Caceres, 2015; I-G-1; I-G-2). Under the APV, police officers have the authority to enforce SWM laws. However, the police have other priorities such as murders, theft, drug smuggling, etc. It is thus somewhat unrealistic to expect them to enforce waste-related laws (I-G-1, I-G-2). Due to the non-enforcement by police, the Aruban Government passed legislation establishing the Bureau City Inspector (BCI) in 2012. The BCI has been operational since 2014 under the Minister of Environment, Mike de Meza. A handful of City Inspectors, also known as *milieu politie*, are equipped with a fleet of two pick-up trucks and are tasked with enforcing SWM laws in public spaces. Residents may report cases to BCI and City Inspectors will then investigate the case and either redirect the residents to another department or process their complaint. Additionally, when residents make repeated complaints about abandoned buildings, the BCI may work towards convincing the buildings' owners to demolish them (I-G-1).

The BCI severely lacks the authority and capacity to fulfil its obligations under the law. Only the head of the BCI holds the legal authority to punish any infringements. The other City Inspectors do not have the power to act on their findings. The compromise has been to inspect situations and subsequently persuade infringers to clean up with the threat of a potential fine (I-G-1). This is a clear limitation on the capability of the handful of City Inspectors to do their job. In addition, the funds of the department have decreased since its establishment in 2014 (I-G-1). It is important to note that due to Aruba's small size, social networks extend to a larger proportion of the population. Thus, distributing fines is more complicated and more controversial than in larger jurisdictions where there is more anonymity (I-G-1; I-G-2). Furthermore, the idea of enforcing waste laws is an annoyance to some, which may explain the unwillingness for the legislature and ministers to give necessary powers to BCI and other relevant bodies.

Pressure from environmental NGOs and the research of Loosveld (2015) and de Sciscolo et al. (2016) led to the legislation on a plastic bag ban. The ban took effect on January 1st 2017 and has been widely praised for its potential to reduce plastic waste on Aruba. However, the ban is very limited in its scope and its implementation. Due to the fact that there is no appropriate enforcement body for SWM laws, this ban is not likely to meet the public's expectations (I-G-1, I-G-2). It does not address the local use of disposable plastics such as Styrofoam cups or packaging. As a standalone law, the ban does little to improve the SWM system as a whole. However, to the best of the researcher's knowledge, there was no integration of BCI or of community actors in the decision-making process. Having done so would have improved the effectiveness of the ban by revealing the necessary steps to eliminate excessive plastic use on Aruba. The parliamentarian who proposed the law is also administering the awareness campaign with help from the Aruba Tourism Authority (ATA) and others. According to the director of DNM, "implementation requires the institutions and frameworks for it, but [these are] not in place. So [the plastic bag ban] is not well implemented" (I-G-2).

WastAway: A case of under-participation and its effects

In March 2002, the government of Aruba launched a public bidding for technical proposals on solid waste management, dubbing it the 'Emergency Action Plan' (Warriors, 2005). The whole process was poorly planned, with the bidding request being too broad and without clear goals. This resulted in a lack of research and discussion regarding the decisions made during the bidding process (I-G-2). The company which won the bidding was Bouldin & Lawson, with their 'WastAway' technology. Bouldin & Lawson claimed that their 'fluff' output material has the potential to turn unsorted waste into building material. After a few months in operation, the WastAway factory proved unsuccessful and remains unused (I-G-2; I-CS-12).

The Aruban government, supported by Dutch development aid, spent around 20 million Aruban florin (approximately \$11.7 million USD) on the failed initiative. In April, 2011 the Aruban Parliament called for an investigation into Candelario Wever, the former minister responsible for the WasteAway deal (Sevinger, 2011). The result of this investigation is unavailable to the public.

According to Rainbow Warriors International (2005), Transparency International has accused Mr. Wever of administrative corruption. Furthermore, the Rainbow Warriors (2005) state that the 'Invitation for Expression of Interest' teemed with "irregularities" given that the Aruban Government had already decided to grant the contract to BouldinCorp. In this way, community voices were not taken into account during the decision-making process. This is a form of nonparticipation and manipulation of the public in the participatory process. Cabrera (2012) suggests that when spatial, public health, and environmental issues related to waste reach a critical point, government leaders tend to look for "panacea" technologies to solve them. The WasteAway case is an example of a top down approach to solid waste problems which ignored the community and did not involve proper assessment procedures. The appropriate inclusion of the community in decision-making has the potential to limit the amount of capital and organizing capacity dedicated to such unrealistic panaceas. Furthermore, community involvement makes it more likely that local initiatives will be contracted to tackle waste issues.

Frameworks and cooperation

It is clear that there is a lack of an integrated SWM policy on Aruba. Cantanhede (1995) formulated Terms of Reference for a SWM Master Plan on Aruba. However, as far as this research can uncover, there is no indication that the responsible parties ever followed through on aspects of this plan. The existence of such a plan significantly clarifies and solid waste systems and presents options for the

improvement of efficiency in their management. If passed, DNM's *Landsverordening Milieubeheer* may fill many of the current gaps in Aruba's SWM system. As of yet, there is only ad-hoc cooperation between departments responsible for SWM (I-G-1; I-G-2). This confirms the literature's hypotheses on low *coordination and integration*, which only results in superficial progress with "little policy and governance changes" in the realm of SWM (Singh, 2014).

In the SAMOA Pathway document, the UN General Assembly (2014) states the importance of enhancing technical cooperation in waste management in SIDS. The UNDP established the Aruba Centre of Excellence for Sustainable Development in SIDS (COE) in 2015. The COE works with the Sustainable Development Goals as its targets, of which SDGs 11 and 12 relate directly to waste. As an organ of South-South development cooperation, the COE is a useful tool for capacity training and knowledge exchange between SIDS (UNDESA, 2016). The UNEP and the Caribbean Environmental Programme supposedly cooperate with Aruba on waste. However, the ABC islands of Aruba, Bonaire and Curacao exhibit little inter-island cooperation in regards to SWM (I-G-2). As scale is often cited as a challenge for recycling in SIDS, these neighbouring islands have a strong potential to cooperate to overcome such challenges.

Moreover, there is no established and shared policy being practiced regarding community participation in Aruba's government departments. Individual departments have the choice on what extent to include civil society in the decision making process (I-G-1; I-G-2). Certain government officials choose to disregard cooperation with private initiatives (I-CB-1). This is problematic, as it leaves it up to the good will of these officials to decide to employ legitimate forms of community participation. Instances of cooperation exist on a spectrum from a complete disregard for inclusion, to ad-hoc moments of participation and institutionalized involvement. A participatory approach

can help create consensus and find common ground for collaboration (Shah, 1997, p.75). Community members are independently pursuing SWM alternatives which could significantly reduce the amount of waste which ends up in Parkietenbos and Aruba's sixty-plus illegal dumps.

Community-Based SWM

Community-based initiatives serve an important role as catalysts for action. Governments often take extended amounts of time to establish projects and often search for panacea solutions to issues such as waste. The following initiatives of private individuals and organisations are examples of alternative solutions for SWM. These initiatives also put pressure on governing bodies responsible for SWM by challenging norms and the oligopolistic industrial organization of the waste sector.

Makerspace and plastic recycling facility

A makerspace, also known as a 'fab lab', is a space for communities to access tools and make products. Such a space was founded in Aruba in 2016 by individuals with no expertise in manufacturing or SWM (I-CB-1). A local art academy granted physical capital to this initiative in the form of space in its buildings. The Aruban Government indirectly supplied the makerspace with a small amount of start-up funding after a complicated bureaucratic procedure. This makerspace had previously worked with other educational institutions and has been garnering liquid capital and parts through the internet. The makerspace collectively built open-source manufacturing machines such as 3D printers at a low cost, partly by using waste materials. As discussed in the literature review, it can be difficult and prohibitively expensive for SIDS to obtain specialized parts for manufacturing (Bruguglio, 1995). The makerspace has had to import custom parts from the USA, resulting higher expenses and delays (I-CB-1).

Once a week, the makerspace is open for anybody to construct their own designs with 3D-printers and similar machines. It also promotes consumer consciousness as consumers are producing objects which they later use. This contributes to a transformation away from a 'use and dispose' mentality which relates to the passive consumption of goods manufactured outside of Aruba.

Given their lack of budget and promotional capacity, introducing the initiative to the community has been a difficult process. Nonetheless, numerous volunteers have helped the organisation in building machines and renovating the space for a plastic recycling facility. The community-based approach taken in their decision-making process for this project is of particular interest. During several open design-thinking sessions, community members conceived of products which could be made using plastic recycled by the initiative. The community developed the following contextually appropriate designs:

Food: A home water management system that redirects rainwater from modular gutters for hydroponic home gardening.

Construction: Decorative plastic floor tiles.

Tourism: 3D-printed plastic sea shells, the exact shape of which is developed through 3D-scanning of natural shells. This would reduce the number of seashells taken from beaches by tourists and furthermore create awareness of the amount of plastic imported for consumption by tourists.

Wildlife: A snake-ensnaring device for each neighbourhood designed to safely and ethically catch invasive snakes such as boas.

Education: Custom bottles of hard plastic built around upcycled glass and distributed primarily to school children (I-CB-1).

By employing the capacity of the community, this initiative has significantly reduced its costs. The ultimate aim of this open-source initiative is to democratise technology and push the community to understand how technology can work for them. As an open-source project, it is highly replicable and puts pressure on Aruban companies and the Aruban Government to organize recycling in Aruba. The achievements of this organisation reveal the possibilities of community-based action. The potential for community education and involvement in waste issues, recycling, and manufacturing cannot be understated.

Tyre-to-energy & export company

One Aruban company transforms used tyres into a high quality light fuel through an innovative pyrolysis process (I-CB-2). This fuel has similar qualities to diesel and will be sold locally. The factory has the capacity to produce fuel in equivalent of 1 MW of power per day, 1% of Aruba's daily electricity consumption. The company reportedly receives almost all used tyres in Aruba (I-CB-2). The factory's circular practices include the local sale of excess steel wiring from the tyres and recovery of waste gasses to be used as energy in the recycling process. The company also transforms used motor oil into pyrolysis oil, which can be used for industrial or commercial purposes. In addition, the company has developed a way to clean and compact used aluminium cans and to sell the raw material on the market. Lastly, the company buys and exports used batteries. The company's founder and team of one dozen workers have learned a great deal about this sort of manufacturing from the internet.

Due to difficulties in obtaining permits, the company's operations were delayed for over a year, putting significant financial stress on the budding enterprise. While this company survived the bureaucratic process, the potential of other initiatives doing so is limited. The company is located in the Aruba Free Zone, and is thus

granted fiscal incentives due to its export activities. The company received much technical support and materials from China and Russia due to the lack of expertise in Caribbean and Latin America. This project serves as an example of how innovation in SWM reduces waste and presents opportunities for using waste as a valuable resource.

Regatta

The regatta is a yearly boat racing event organised by the sailing community of Aruba. One of its organising members found the regatta's practices wasteful and sought to transform how the event consumed materials. Firstly, she eliminated source waste of single-use plastic cups from the event and replaced them with reusable bottles. Secondly, she eliminated the use of low quality plastic trophies. With help from the internet, she built her own aluminium recycling kiln, and now makes the prize trophies out of recycled aluminium.

On top of making the Regatta run more sustainably, the aim of this project is to increase awareness about plastic waste and recycling. Interestingly, the response to this project in the Regatta differed between the children and the adults. Adults first scoffed at the idea; however, the children understood and responded well, effectively convincing the adults. This point shows how community-based initiatives, and education in SWM, must be directed towards young people. They are the ones with the potential to transform systems established by their parents.

Neighbourhood case study: Rancho

The downtown neighbourhood of Rancho is said to be the oldest neighbourhood of Oranjestad. Historically a fishing community, there are still remnants of the fishing and cock fighting traditions which stem from the early

1900s (Huygen, 2010). Rancho is now a residential area with a multitude of social and economic problems. Pockets of latent activities related to drugs, gangs, petty crime and prostitution manifest themselves across this area, particularly in and around abandoned buildings (Kirchner, et al., 2014). Currently, the DOW is administering urban renewal projects in parts of Rancho. Speaking to local residents and businesses allowed for an understanding of perceptions of solid waste and related issues.

The Rancho community is deeply dissatisfied with the trash situation in their neighbourhood. Overflowing and cracked trash bins, although not isolated to this area, are abundant. It is common to find mattresses, wooden pallets, fridges and other large items on street corners. Several businesses reported that their large trash bins have been filled by others and even burnt up in flames (I-CS-1; I-CS-6). The most litter prone locations are inside Rancho's alleys, which are of tremendous historical and cultural importance.

Rancho's old Lime Kiln, an officially recognized national monument, serves as a home for individuals struggling with drug addiction. Their presence leaves the lime alley in a degraded state. Furthermore, squatters often live in abandoned buildings. The individuals and families living in these places lack adequate water, sanitation, and hygiene (I-CS-8; I-CS-11). One of such buildings, found next to the Lime Kiln, is a hotspot for illicit drug use and gang activity. Its strong smells and the trash found nearby are a great inconvenience for Rancho's residents and visitors (I-CS-8; I-CS-11). Indeed, most people frequenting the house in question are not local to Rancho (I-CS-8).

The perception by many in Rancho is that the main issues regarding trash are related to people struggling with drug addiction (I-CS-1; I-CS-2; I-CS-3; I-CS-4; I-CS-5; I-CS-6; I-CS-7; I-CS-8 I-CS-10; I-CS-10). However, it is clear that there are other underlying historical, economic

and social factors at play. Reportedly, there are few key moments in Rancho's historical development which have contributed to the neighborhood's SWM issues.

It seems that the 1980s, and particularly the closing of the refinery in 1985, brought a substantial change to Rancho (Huygen, 2010; I-CS-2; I-CS-11). Many residents of Rancho had been employees at the refinery and with its closure, many residents moved out of the neighbourhood. This sudden flight left many buildings abandoned, thereby attracting substance abusers (Huygen, 2010; I-CS-2). Tourist development further alienated Rancho, which used to host boat competitions and sports events, thus being a centre of activity for the whole of Oranjestad (Kirchner et al., 2014).

As the Oranjestad cruise port and the surrounding area was developed for touristic markets, the local fishing activities were forced to a halt (Kirchner et al., 2014; I-CS-1; I-CS-8; I-CS-11). Access to the sea was effectively blocked off by fences and Rancho has suffered gravely since then. Rancho's children report being marginalised at school and important social activities such as the Queen's parade were effectively moved out of the neighbourhood (Kirchner, 2014). The trash issues are thus manifestations of the wider problems at hand. Poverty in the area creates complications for SWM. For example, those on welfare or illegal immigrants without gainful employment, may not be able to pay for trash bins or waste collection (I-CS-5; I-CS-6; I-CS-8; I-CS-11).

Within the neighbourhood there are differing opinions on who hold the responsibility of dealing with trash. Some say it is the government's responsibility alone; others suggest it is that of the residents or a matter of cooperation between the two (I-CS-4; I-CS-6; I-CS-8; I-CS-11). Nonetheless, proper education for Rancho's children, as well as culturally sensitive programmes building waste awareness are deemed necessary (I-CS-2; I-CS-3; I-CS-4;

I-CS-5; I-CS-10; I-CS-11). Having said that, some members of the community, such as the proprietors of food stores and local NGOs are working towards this. For example, two of the interviewed businesses give their food waste to pig farmers and attempt to recycle whenever possible (I-CS-3; I-CS-6). Furthermore, several respondents actively clean the areas in front of their houses or businesses (I-CS-1; I-CS-2; I-CS-3; I-CS-7; I-CS-8).

Social housing efforts have been made outside of Rancho, but this neighbourhood has not been targeted for such initiatives (Stichting Monumentenfonds, 2012). Providing appropriate social housing and rehabilitation programs for substance abusers in Rancho is necessary for enhancing the neighbourhood's social welfare. Renovating historical monuments and houses and demolishing decomposing buildings will aid in this process. Additionally, cleaning up the physical environment is an effective way to limit crime (Johnson, 2009; Stewart, 1998). Further development efforts must be concerned with Rancho's historical monuments, cultures and its people, and not at gentrification through 'beautification'. With its strong cultural heritage, Rancho has strong potential for manufacturing local craft goods and attracting tourists.

Conclusions & Recommendations

The state of SWM in Aruba reveals the failure of the State in solving the urgent issues of solid waste. The laws and policies regarding SWM are severely limited and it is of utter importance that DNM's waste policy be passed in parliament to make up for such chasms.

There is limited human, institutional and financial capacity in SWM departments such as the DNM and BCI. Their roles and responsibilities are also not defined clearly enough. Problems that result from this will only worsen if the institutional bodies are not given the appropriate tools to implement solid waste laws.

An integrated SWM master plan, which is decided on in a participatory manner is required for Aruba to move forward with transforming its solid waste system. This plan can be for a centralized or decentralized system, but community participation in the decision making process will make it more feasible and accepted by civil society. Inclusive decision-making will serve to prevent investment in such projects as WastAway. However, the participation of the public should not be expected from the get-go as all parties require strong attention to be involved.

Community based initiatives in their starting phase have not yet significantly changed the SWM system in Aruba. Their scale and the difficulties they face in gathering support from a large portion of society shows potential limitations of a community-based approach. However, the innovation and ingenuity showcased by the reported community-based initiatives places them as examples in SWM in Aruba. They would work best if the Aruban Government was more open to collaborating, incentivising, and supporting bottom-up SWM projects.

Whichever solutions Aruba may pursue in the future; it is of utter importance that they be applied in a non-discriminatory or preferential manner. This means that neighbourhoods such as Rancho and other areas of the island without heavy tourist activities must be treated with care.

Having said that, different approaches are required to solve issues on the Windward and Leeward sides of the island. Ad-hoc clean ups of the Windward side do not suffice. Examples of more effective initiatives include frequent and planned shore clean ups, or unobtrusive ocean cleaning techniques to collect trash before it washes up on shores. The Leeward issue of trash must be dealt with by eliminating litter at the source, necessitating more educational and legal approaches.

In conclusion, community participation can be effective in solving SWM issues in Aruba. Community-based initiatives are challenging waste norms, and participatory decision making can help avoid cronyism, corruption, and stasis of the State. Active citizens in communities are the leaders in mobilising development towards improving the living environment for Aruba's citizens. However, the state is needed to facilitate and manage solid waste as a whole. Furthermore, strengthening cooperation between Bonaire, Curacao, and other neighbouring jurisdictions can help to realise Aruba's potential as a waste management hub for the South Caribbean.

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I came here with a plan. I was confident in it. It would be easy enough to execute and the methodology seemed foolproof. Not only was I assured of my capabilities, but I knew my research would have an impact. Gradually, over the period of my first 72 hours on this deeply complex island, I realized that I could no longer justify conducting the research I had spent the past half year planning. Looking back, the turning point occurred during the program's opening ceremony at the UA, when Prime Minister Mike Eman welcomed us to his proud home. During Mr. Eman's welcome speech, I gained new insights into the widespread societal transformations underway on Aruba in response to upheavals in global economy and ecology.

After a week of trying to find the right theories through which to convey my thoughts, it clicked. I had flashback to my second semester at UCU. Tommaso, Alessandro, Beniamino, Mike and I were throwing banter around the classroom. Upstairs Locke, Newton side. Rob van der Vaart, sitting casually with legs crossed and a David Harvey article in his lap, managed to articulate a

phenomenon I had begun to take notice of during my last few years in Philadelphia. Entrepreneurial governance. Flash forward two years. After thinking it over for a few days, I asked Eric what he thought of my new idea. At first, I felt he thought "not another one," but his eyes lit up as I pressed on.

With Eric's encouragement, I began digging. Later that week, I called Rob and got to writing. Nearly two months later, I'm beyond satisfied to be sitting by the gazebo at the UA, finished the first draft of my bachelor's thesis. The topic of entrepreneurial governance has occupied my mind day and night since early February. Having coffee in the morning with Lou, I'm picking her brain on cultural heritage and place-making. Playing dominoes at midnight with Juan, Luis, and Ben, I make the wrong move, distracted by Harvey. Running up the hill to the California Lighthouse, I'm thinking what Jessop might say about its renovation.

This experience on Aruba has taught me more about my own academic and personal path than I had ever anticipated. I've resolved to move to a new country in August, start an ambitious project upon my return to Utrecht, and do my part in supporting the UA in the future. I am forever indebted to this university and this island for hosting me during this phase of life.

Entrepreneurial Governance and Sustainable Development on Aruba: a Cultural Political Economy Approach

by William Cruise

Introduction

This researcher takes David Harvey's theory of entrepreneurial governance seriously. The research presented in this paper is based on Harvey's enduring and prescient ideas. Harvey's 1989 article "From Managerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism" captured the historical moment in which the new norms of urban economic relations were being solidified. His theory enhanced social scientists' understanding of urban political economy and the regulatory dynamics which continuously shape the urban condition. This researcher adopts Harvey's analysis as the basis for analyzing the economic governance of the small island nation of Aruba, a highly urbanized constituent country within the Kingdom of the Netherlands. This research seeks to understand whether Harvey's theory of entrepreneurial governance is useful in understanding the Aruban Government's socio-economic policy agenda, thereby establishing the relevance of Harvey's theory to the context of Small Island Developing States (SIDS) in the post-2008 world.

In addition to Harvey (1989), this researcher employs Jessop & Sum's (2000) explanation of entrepreneurial governance. Jessop & Sum's (2000) discussion of entrepreneurial governance in Hong Kong was significant in

the development of the "post-disciplinary" field of Cultural Political Economy (CPE). CPE endeavors to understand how economic realities are shaped by the interplay between regimes of economic regulation and cultural narratives (Jessop & Oosterlynck, 2008; Jessop & Sum, 2015). Jessop & Sum (2000) have drawn many lessons from Schumpeter, a widely-recognized theorist of entrepreneurialism and a forefather of institutional economics. Influenced by the above-mentioned authors, this researcher defines economic governance as the way a territory's government and semi-governmental agencies, in concert with prominent capital and labor interests, organize a society's productive forces.

Drawing from Hidalgo & Hausmann, (2009) this researcher suggests that the effectiveness of economic governance and the complexity of a territory's economic relations determine the quality and quantity of any given society's output. As technological progress accelerates, the frontiers of economic complexity expand. The information and communications technology (ICT) revolution which continuously enhances the productive capacity of many economic sectors also shapes the structure and limits of local and global governance. In the era since Harvey's article was published, most of the world's territory has been integrated into a complex "global cultural economy" (Appadurai, 1990).

Governance systems and technology are related in several ways. Firstly, governance systems are very much concerned with the regulation of new technologies. Furthermore, both governance systems and technologies diffuse from innovator to duplicator. Thus, the theory and practice of neoliberal regulatory governance have spread from Reagan's America, and Thatcher's Britain to post-colonial locales such as Aruba and Hong Kong. Within the "global cultural economy," territorial units from neighborhoods to supranational unions wield governance and ICT with the purpose of capturing and effectively mobilize financial flows. Depending on a territory's size, geographical position, social history, and level of sovereignty, this interaction takes a unique form. For instance, post-colonial island territories such as Bermuda and the Cayman Islands have utilized the privacy software brought about by the ICT revolution to serve as tax havens. Meanwhile, sovereign island nations such as Iceland and New Zealand have attempted to strike a balance between ecology and economic development by utilizing ICT to develop and employ renewable energy technologies.

Policies with the same theoretical grounding can be uniquely applied due to each territory's historical institutional arrangements of governments and organizations ancillary to governments. During application, the nature of the policies also evolve because priorities differ from territory to territory based upon unique local and global pressures. In the case of Aruba, the current governing cabinet has codified a policy consensus of sustainable development based upon the United Nations' seventeen Sustainable Development Goals (SDGs) (Government of Aruba, 2016). At the Rio+20 Earth Summit in 2012, the United Nations resolved to create the SDGs given the perceived failure of the Millennium Development Goals (MDGs).

This author asserts that in actualizing the policy consensus of sustainable development, the Government of Aruba has embraced many methods of entrepreneurial

governance, a set of policies which has taken on new life in the nearly three decades since Harvey's seminal article was published. The deepening globalization of the global economy has coincided with a surge in technological advancement, giving rise to discourse about and efforts to create Smart Cities throughout the world (Florida, 1995; Caragliu, Del Bo, & Nijkamp, 2009). There are substantial governmental and entrepreneurial efforts underway to transition Aruba into a Smart Island. The Aruban Government is attempting to raise the island's labor productivity through the development of four sectors: green technology, maritime & logistics, creative industries, and value-added tourism (Government of Aruba, 2017). While the Government of Aruba pursues a domestic sustainability transformation, it is also positioning itself as a world leader in the drive for sustainable development. By engaging in a series of international and supranational forums, the Government of Aruba is attempting to demonstrate the potential for sustainable growth in Small Island Developing States. This paper considers the possibilities of doing so within the disciplinary logic of global financial capitalism.

Given that this research is a study in institutional economics and critical geography, Aruba's current development trajectory must be assessed in the context of the structure and underlying regulatory logic of Aruba's historical economy. Aruba is a small country with a long history of economic openness, having developed as a cog in the Euro-American industrial machinery beginning in the 1920s. For six decades, Aruba was the site of an Exxon oil refinery which processed the crude oil drilled in Venezuela's Lake Maracaibo. During the Second World War, the combined refining capacity of Aruba's Lago Refinery and Curacao's Isla Refinery was far greater than any single refinery in the world (Hausman, 1943). Exxon closed the Lago Refinery in 1985 following a protracted Fordist crisis, sending the Aruban economy into freefall and leaving mass tourism as the island's sole economic pillar. After twenty years of steady growth in the tourism sector, the drastic

effects of the 2008 world financial crisis shocked Aruban society into a dramatic shift of socio-economic priorities and policies.

The purpose of this research is to interrogate whether the post-2008 shift can be characterized as “entrepreneurial” in the terms defined by Harvey (1989) and Jessop & Sum (2000). It is important for Arubans to understand the societal transformation underway on their island in an international context and through the perspective of cultural political economy, a sub-discipline of institutional economics (Jessop & Oosterlynck, 2008). If it is indeed the case that the current Aruban Government functions with an internalized entrepreneurial logic, then it is also of great academic and societal value to explore how this entrepreneurialism can be transformed into a “progressive urban corporatism” (Harvey, 1989, p. 16) with a keen eye towards growing sustainable development and improving South-South cooperation.

Literature Review

Harvey’s conception of entrepreneurial urban governance

Harvey (1989) canonized the idea of the entrepreneurial city during the last years of the Reagan-Thatcher era, addressing the ongoing shift in urban governance in North America and Western Europe. Harvey (1989) argued that during the three decades following the end of the Second World War, urban governments in the advanced capitalist countries fulfilled a largely managerial role, acting as the local administrators of nationally directed Fordist-Keynesian welfare states. The serial economic crises of the 1970s, driven in large part by sharp increases in the price of oil, resulted in widespread unemployment and blight in numerous industrial cities of North America and Western Europe. With revenues from the central state cut and local tax bases shrinking, urban governments began adopting creative, entrepreneurial

strategies to secure employment for their populations and a tax base for their self-perpetuation. The inability of Keynesian academics and policy makers to explain stagflation or remedy its consequences, created an opening for neoliberal doctrine to take hold as concrete government policies in North America and Western Europe during the late 1970s. The elections of Thatcher in 1979, Reagan in 1980, and Kohl in 1982 consolidated neoliberal policies in their governments and exacerbated the trend of individual cities and regions independently pursuing entrepreneurial policy agendas within the new global regime of flexible capital accumulation.

Harvey’s theory of the transition from managerialism to entrepreneurialism built upon previous work in the field of urban studies by such authors as Goodman (1979), Peterson (1981), Judd & Ready (1986) and Leitner (1990). While the theory of the entrepreneurial city was not novel, Harvey elaborated on the documented trends by defining a dialectical relationship between economic development and urbanization, or as he termed it, the “urban process.” The conceptualization of this dialectical relationship can be traced back to Lefebvre’s (2009) writings on the State and the way in which humans act on and within it.

Before characterizing the factors which make a city entrepreneurial, Harvey attempted to demystify the concept of urban entrepreneurialism by suggesting that cities are not “active agents,” but rather “mere things” (p. 5) whose political economy is shaped by “growth machines” (Molotch, 1976). Expanding upon this clarification, Harvey made the distinction between “government” and “governance,” emphasizing that a regime of urban governance is the class alliance in which the government is *primus inter pares*. Urban governance coalitions typically include financial institutions, real estate companies, construction firms, universities, hospitals, trade unions, utilities companies, and many

other institutions operating with different, but often overlapping goals. Harvey emphasized that governments of across the spectrum, even those on the political left, could be coordinators of urban entrepreneurialism, citing as examples the Communist authorities in Bologna and various Labour councils in the North of England. The logic was that in the context of the zero-sum competition defining the post-Fordist era, even the most ardent municipal socialists ended up “playing the capitalist game and performing as agents of discipline for the very processes they are trying to resist. (p. 5)”

Harvey characterized the entrepreneurial city as pursuing one or more of the following strategies: 1.) Utilizing existing resource and locational advantages in new fields of production, as well as fostering new advantages through “direct interventions to stimulate the application of new technologies, the creation of new products, or the provision of venture capital to new enterprises” (p. 8). Entrepreneurial urban governments work to control local costs by cutting the wages and benefits of their own employees in coordination with large institutions such as universities and hospitals. The exploitation of labor is often accompanied by “tax breaks, cheap credit, the procurement of sites...[and] a substantial package of aids and assistance as inducements” (p. 8) to benefit private enterprise at the expense of public enterprise.

2.) The entrepreneurial city “has to appear as an innovative, exciting, creative, and safe place to live or to visit, to play and consume in” (p. 9). Local authorities attempt to attract tourism and “conspicuous consumption” (Veblen, 1899) through large-scale urban redevelopment projects, which often embrace post-modernist architecture, shopping centers, convention centers, and sports stadia. In addition to pushing for enhancements to the built environment, tourism authorities in entrepreneurial cities organize “spectacles on a temporary or regular basis,” which “become the focus of investment activities” (p. 9)

and avenues for the promotion of not only the municipality, but also associated private entities. Beyond the purpose of being venues for economic growth, urban spectacles often promote images of “dynamic” and “enterprising” urban communities. This approach can be summarized by the term “place marketing” with the aim of incentivizing and capturing the benefits of conspicuous consumption in a climate of generalized recession.

3.) As early as the late 1980s, Harvey observed the attempt of many cities to acquire “key control and command functions in high finance, government, and information gathering and processing” (p. 9). The importance of agglomeration economies to this strategy has made it exceptionally difficult for smaller urban regions to break the monopoly power which world cities such as New York and London exercise. To be competitive on a global scale as an “informational city” (p. 10) requires not only significant investments in transportation and communications infrastructure, but also office space with extensive intra-industry linkages.¹ This sophisticated urban economy requires the cultivation or recruitment of experts. The territory must either prioritize education in law, business, high-tech production, and communications or cultivate enticements for experts to immigrate.

4.) Even after the retreat of the Keynesian-Welfare State, national governments continue to sustain urban prosperity in those metropolitan areas which host functions vital to national strategic interests. In the United States and United Kingdom, continued government spending on the military and the high-tech weapons sector has defined the economic growth trajectory of the Long Beach-San Diego agglomeration and of Bristol. Harvey referred to this fourth and final strategy as gaining a “competitive edge with respect to redistributions of surpluses” (p. 10).

¹ With further developments in ICT since 1989, it is questionable to what extent office space is still a prerequisite for building an “informational city.”

While the first three strategies are unquestionably relevant to the development of urban and regional economies today, the fourth strategy has morphed into something altogether new with the rescaling of statehood that has unfolded since 1989. As Regional Trade Agreements have evolved into economic unions operating under varying degrees of integration, these bodies have developed redistributive mechanisms of their own. In the European Union, this takes the form of the European Structural and Investment Funds. The European Union distributes funds to many peripheral regions which are of vital strategic interest due to their proximity to Russia or their location on the Mediterranean coast. In the contemporary world, we can no longer think of redistribution as confined to the scale of the nation state, but rather as a process which increasingly unfolds across borders. This logic can be extended to the United Nations. The General Assembly's presence generates \$3.69 billion towards the economy of New York City on a yearly basis (New York City Mayor's Office for International Affairs, 2016). While this is an exceptional case, the local economic and cultural contribution of UN institutions and other supranational bodies should not be overlooked.

Harvey viewed the success of these strategies as dependent "upon the nature of the coalitions that have formed, the mix and timing of entrepreneurial strategies, the particular resources (natural, human, locational) with which the metropolitan region can work, and the strength of the competition" (p. 10). Beyond those factors, exceptional patterns of urban growth have depended upon the intensifying interactions between the prevailing strategical choices of urban and regional governance coalitions. For instance, revenues from the defense industry and the "rapid accrual of command and control functions" (p. 10) have driven consumption spending in the Southern California megalopolis, leading to a resurgence of local manufacturing and rapid growth in the region. Today, this region continues to see substantial economic growth based largely on the distributions characteristic of "post-

Keynesian militarism" (Gilmore, 1998) in the United States. Conversely, the redevelopment of Baltimore's inner harbor with an eye to conspicuous consumption generated a good deal of menial employment, but failed to result in significant spillovers into the city's manufacturing or financial sectors. One of the most socially and economically troubled cities in the United States, Baltimore's urban blight has been the subject of many studies including the critically acclaimed television program *The Wire* (Simon, 2002).

In a global political economy characterized by near perfect capital mobility, entrepreneurial cities have operated within a logic of inter-urban competition. Harvey argued that this competition acts as a coercive force which "bring[s] [cities] closer into line with the discipline and logic of capitalist development" (p. 10). As such, there began a "serial reproduction of 'world trade centers' or of new cultural and entertainment centers, of waterfront development, of post-modern shopping malls, and the like" (p. 10). The unpredictability of global "finanscapes" (Appadurai, 1990) which can lead a city, country, or region to localized recession within minutes shapes the predictability of local economic policies and their spatial manifestation. Jessop & Sum (2000) elaborate upon this concept in their discussion of the Asian Financial Crisis of the late 1990s.

Inter-urban competition continues to intensify in the post-Fordist era of flexible accumulation. Firstly, the reduction of barriers to trade and transport costs has allowed international capital to be more discriminating in its locational choice, scrutinizing minute differences in the quantity of labor, levels of human capital, natural resource endowments, the condition of infrastructure, and regulatory regimes. Given these realities, urban governance coalitions have become increasingly concerned with cultivating a capital-friendly "good business climate" (Harvey, 1989, p.11). Part of cultivating such a climate is the undertaking of speculative investments in the hopes of "lur[ing] highly mobile and flexible

production, financial, and consumption flows into its space” (p. 11). Harvey suggested that such a mode of governance can stifle innovation by confining the path of urban development to that favored by international financial institutions. Harvey also noted that even when an urban region undertakes those reforms and infrastructure projects favorable to international investors, the instability and volatility of the global economy leave urban economies highly vulnerable.

Through its participation in public-private partnerships, the public-sector tends to exacerbate its own vulnerability through the absorption of risk on behalf of mobile capital. While public-private partnerships have been lauded as exemplary models for urban development, Harvey suggests that they “amount to a subsidy for affluent consumers, corporations, and powerful control functions to stay in town at the expense of local collective consumption for the working class and poor” (p. 12). Debt-financed mega-projects such as stadia, harbors, and shopping centers thus serve the dual purpose of attracting mobile capital and attempting to alleviate the increasing alienation of urban populations by constructing an image of urban unity. Regarding the global corporate media’s promotional appraisal of 1980s Baltimore as a “Renaissance City,” Harvey suggested that Baltimore’s turn to entrepreneurialism had “given the population at large some sense of place-bound identity. The circus succeeds even if the bread is lacking. The triumph of image over substance is complete” (p. 14)

This triumph is at the heart of Harvey’s dissection of entrepreneurial governance. While wide swaths of urban populations in the advanced capitalist and developing world toil under the conditions of minimum-wage service sector employment, the governments claiming to represent them forge ahead with projects that do little to remedy increasing impoverishment and inequality and much to reinvest in mobile and capricious capital. Although urban entrepreneurialism often takes similar forms throughout the world, it is constantly evolving and presenting new

“packages” for mobile capital. These packages arise from the “relative autonomy” which characterizes all institutions operating within the logic of capitalism. Harvey concluded by stating that while urban entrepreneurialism served to deepen uneven economic development both nationally and globally, there rests a dormant potential for it to transform into a form of “progressive urban corporatism” (p. 16). Rather than attempting to isolate itself from the negative aspects of globalization and economic integration, a territory defined by “progressive urban corporatism” builds alliances to challenge the global hegemony of neoliberal capitalism. This paper will elaborate on the promising developments of such a form of corporatism on Aruba and the potential of launching such a challenge through the framework of South-South development cooperation.

Schumpeter meets Harvey: reframing entrepreneurial governance in economic terms

Jessop & Sum (2000) were two of the first authors to apply the theory of the entrepreneurial city to analysis of the post-colonial world and to East Asia. The authors argued that despite the image of Hong Kong as the epitome of laissez-faire capitalism, the city’s government has long played an active role in stimulating economic activity. This was particularly the case during the late 1990s, an era filled with the uncertainty surrounding decolonization and the Asian Financial Crisis. In addition to applying the theory of entrepreneurial governance to a new geographical area, Jessop & Sum (2000) effectively welded a Schumpeterian (1934, as cited by Lim, 1990) analysis of entrepreneurialism with Harvey’s (1989) definition. Jessop (1993) had previously invoked Schumpeter in his postulation that a Schumpeterian Workfare State had replaced the Keynesian Welfare State as the regulatory regime of post-Fordist economies. The approach of Jessop & Sum (2000) has solidified the importance of economics within the study of entrepreneurial cities and vice versa. This synthesis is depicted graphically in Figure 1.

Lessons from Schumpeter

- (1) The introduction of a new good—that is one with which consumers are not yet familiar—or a new quality of a good.
- (2) The introduction of a new method of production, that is one not yet tested by experience in the branch of manufacture concerned, which need by no means be founded upon a discovery scientifically new, and can also exist in a new way of handling a commodity commercially.
- (3) The opening of a new market, that is a market into which the particular branch of manufacture of the country in question has not previously entered, whether or not this market has existed before.
- (4) The conquest of a new source of supply of raw materials or half-manufactured goods, again irrespective of whether this source already exists or whether it has first to be created.
- (5) The carrying out of the new organization of any industry, like the creation of a monopoly position (for example through trustification) or the breaking up of a monopoly position.

Source: Lim, 1990, p. 215; summarising Schumpeter, 1934, pp. 129–135, as cited in Jessop & Sum, 2014, pg. 2289

Lessons from Harvey

- (1) An entrepreneurial city pursues innovative strategies intended to maintain or enhance its economic competitiveness vis-a'-vis other cities and economic spaces.
- (2) These strategies are real and reflexive. They are not 'as if' strategies, but are more or less explicitly formulated and pursued in an active, entrepreneurial fashion.
- (3) The promoters of entrepreneurial cities adopt an entrepreneurial discourse, narrate their cities as entrepreneurial and market them as entrepreneurial.

Source: Jessop & Sum, 2000, p. 2289

The Synthesis of Schumpeter and Harvey

- (1) The introduction of new types of urban place or space for producing, servicing, working, consuming, living, etc. Recent examples include technopoles, intelligent cities, cross-border cities, multicultural cities and cities organised around integrated transport and sustainable development.
- (2) New methods of space or place production to create location-specific advantages for producing goods/services or other urban activities. Recent examples include the installation of new physical, social and cybernetic infrastructures, the promotion of scale and agglomeration economies, regulatory undercutting or creating new forms of labour market relation.
- (3) Opening new markets—whether by place marketing specific cities in new areas and/or modifying the spatial division of consumption through enhancing the quality of life for residents, commuters or visitors (for example, culture, entertainment, spectacles, new cityscapes, gay quarters, gentrification).
- (4) Finding new sources of supply to enhance competitive advantages. Examples include new sources or patterns of immigration, changing the cultural mix of cities, finding new sources of funding from the central state (or, in the EU, European funds), attracting inward investment or reskilling the workforce.
- (5) Refiguring or redefining the urban hierarchy and/or altering the place of a given city within it. Examples include the development of a world or global city position, regional gateways, hubs, cross-border regions and 'virtual regions' based on interregional co-operation among non-contiguous spaces.

Source: Jessop & Sum, 2000, pg. 2290

Figure 1:

To elaborate upon the conditions which have driven cities and regions to function “as strategic actors with entrepreneurial ambitions,” Jessop & Sum referred to the literature concerning international economic restructuring and the complimentary rescaling of statehood (Ruigrok & van Tulder, 1996; Brenner, 1997, 1999). Jessop and Sum proposed a clear distinction between the two ‘interscalar strategies’ of *glocalisation* and *glurbanisation* (Swyngedouw E. , 1997). They did so to clear the “conceptual morass” surrounding the idea of *glocalisation*, a concept which the authors alleged had been distorted to encompass “all forms of global-local interaction” (p. 2294). Jessop & Sum (2000) argued that observers should view *glocalisation* as the ability and tendency of firms in the advanced capitalist world to exploit the differences of various locales to gain a competitive advantage.

Jessop & Sum (2000) argued that the business strategy of *glocalisation* dialectically birthed the phenomenon of *glurbanisation*, the idea of cities and regions employing entrepreneurial governance to “enhance their place-based dynamic competitive advantages [so as] to capture certain types of mobile capital and/or to fix local capital in place” (Jessop & Sum, 2000, p. 2295). In a similar line of thinking as Jessop & Sum (2000), Richard Florida (1995) characterized the contemporary form of competitive advantage as a “sustainable advantage” of “learning regions” based upon “knowledge creation [and] continuous improvement” (p.533). The concept of “sustainable advantage” stands in explicit contrast with the static comparative advantage characteristic of “mass production regions,” based upon their “natural resources [and] physical labour” (p. 533).

Entrepreneurial governance, tourism, and property speculation: zooming in on Palma de Mallorca

Some of Aruba’s most important natural resources are its white sandy beaches and clear

water. The island of Mallorca in the Balearic Islands of Spain has very similar natural

endowments and like Aruba, Mallorca’s economy is highly dependent on tourism. Palma, the capital and largest city of Mallorca, emerged as an entrepreneurial city during the early 1990s. The global capitalist system first incorporated the Balearic Islands during the 1950s and 1960s, with the total number of yearly tourists rising “from 188 thousand in 1955 to 3.5 million in 1973” (Vives Miro, 2011, p. 5). During this period, with Spain still under the control of the Franco Dictatorship, there was no comprehensive, let alone democratically determined, system of urban planning. Construction developers tied to the Franco Regime were entirely responsible for formulating the Balearic Island’s spatial model and by extension, the geographic distribution of economic activity. In the ten years surrounding Spain’s accession to the European Community in 1986, there was a second tourist boom, with the number of visitors and the housing stock having both grown by 50%. A third, highly speculative boom occurred in the period from 1993 until 2006, with the level of yearly foreign direct investment increasing from 26 million to 90.7 million euros. The claim that the foreign investment was mostly speculative is backed by the fact that “in 2001, there were 85,535 empty homes and 97,148 second homes in the Balearics” (Vives Moro, 2011, p. 6).

It is important to stress that speculative real estate and infrastructure investment is not something which “just happens.” The rapid expansions of the property sector in both Hong Kong and Palma are indisputably products of the planning policies and entrepreneurial strategies of urban governments. The *Partido Socialista Obrero Espanol* (PSOE) had largely embraced neoliberal economic policies with Spain’s accession to the European Union in 1986. Meanwhile,

many PSOE local councils retained progressive approaches to urban planning, working to reverse many of the spatial-economic injustices of the Franco Dictatorship. For instance, Palma's PSOE-led council incorporated radical ideas such as Lefebvre's (2009) 'right to the city' into its 1985 General Urban Plan (Vives Miro, 2011). In 1991, the conservative *Partido Popular* (PP) replaced the PSOE as the main governing party in the Palma municipal council. Local PP leader Joan Fageda campaigned on an entrepreneurial platform, promising a "safer city, a cleaner city, a more comfortable city" and an "urban planning instrument which had to be clear and flexible" (Vives Miro, 2011, pg. 7).

Once in office, the PP set about zoning for two new commercial malls, a convention center, and a massive waterfront development project, supported by European Structural Funds intended to revitalize those urban areas judged to be dilapidated. During this period, public-private partnerships emerged as a tool for urban planning in the Balearic Islands for the first time. One of the partners in the company responsible for Palma's urban regeneration was the corrupt former governor of the Balearic Islands, Gabriel Canellas, whom had previously been convicted for funneling public works funds to the PP (Vives Miro, 2011). The Canellas case is indeed part of a wider pattern in the Balearic Islands and Spain in general, evidenced by the PP's role in a widespread corruption scandal in the Spanish property sector (Financial Times, 2016). One highly controversial construction project is Palma's convention center, the *Palacio de Congresos de Palma de Mallorca*. The project was approved in 2007, with the municipal government of Palma offering free land to the property developers and 44 million euros in funding. The convention center is intended to attract tourism and the associated conspicuous consumption in the 'off-season' of European tourism (Vives Miro, 2011).

Another stark example of entrepreneurial governance in Palma is the recent gentrification of

the centrally-located neighborhood of Gerreria (Vives Miro, 2011). There is an ongoing debate in the field of urban studies over whether the process of gentrification is driven by supply-side forces, demand-side forces, or some combination of the two. The supply-side theories, stemming from Smith (1996, as cited in Vives Miro 2011) suggest that if the gap between the rent collected and the rent which could be earned grows large enough, it becomes profitable for landowners to invest in the area. The potential rents are dependent upon several factors including the area's centrality and nearby attractions, which are in turn determined by both market mechanisms and public policy. Demand-side theorists such as Hamnett (2003, 2009, as cited in Vives Miro, 2011) posit that the urban middle class is the driving force of the process. The demand-side theorists reason that higher-paid service sector employees receive greater utility than industrial workers from living in the vicinity of work and social facilities. Drawing on the work of Garcia Herrera et al. (2007) in Tenerife, Vives Miro (2011) has concluded that the gentrification process of Gerreria has been a supply-side process highly abetted by Palma's entrepreneurial governance coalition.

The municipality of Palma's "Special Plan for Protection and Internal Reform" (Vives Moro, 2011, pg. 11) specifically targeted Gerreria for gentrification, even changing the neighborhood's name from the poorly-connotated *Barrio Xino*. The execution of this plan relied on a coalition formed by the municipality, the construction company *Llabres Feliu*, and the real estate firm *Gerencia Inmobiliaria Balear*. This coalition transformed Gerreria from a neighborhood inhabited by immigrants, the unemployed, and the elderly into a playground for the middle class and tourists. The entrepreneurial coalition reinforced this through the construction of a fictitious narrative of Gerreria, as a "journey through craftsmanship" (Vives Moro 2011, pg. 11). The displacement of some 89 families is regarded as collateral damage in the effort to

build the “city of the future” (Vives Moro, 2011). In the post-Fordist era, the “beautification” of historic city centers is accepted worldwide as a fundamental step in capturing and fixing capital.

Reading Harvey in the post-2008 Era

Twenty-five years after the original publication of Harvey’s article, Jamie Peck (2014, p. 396) wrote of its importance and relevance in the post-2008 world.

This 15-page digest of urban political economy, in condensed form, remains significant because it captured a conjunctural moment; an historical tipping point. It also linked together a synoptic reading of municipal politics, (macro) economic dynamics, and (historical-geographical) processes in a way that described not only that moment but predicted what was to come.

Harvey’s ability to reason across space and forward in time allowed him to create an enduring analysis with a keen eye for the forces behind the rise of urban entrepreneurialism: macro-economic restructuring and the process of glocalisation as described by Swyngedouw (1997, 2004) and elaborated upon by Jessop & Sum (2000).

These forces have caused entrepreneurial urban governance to gain traction across the world, not solely in the post-Fordist states of North America and Western Europe, but in post-developmental and post-colonial states as well (Peck, 2014). Governance coalitions from Baltimore to Hong Kong and Palma de Mallorca have employed and deepened the package of policies and spatio-temporal fixes characterizing urban entrepreneurialism. The ubiquity of urban entrepreneurialism does not mean that Harvey’s theory is a “one-size-fits-all urban transition story” but rather an “analysis of the dull compulsion of interurban competition anticipating a common-sense

accommodation to the low-expectations, hit-and-mostly-miss normalized entrepreneurialism of today” (Peck, 2014, p. 399).

Many of the entrepreneurial ‘innovations’ rolled out in Baltimore, Southern California, and other metropolitan regions during the 1980s have been exhausted in the ensuing period. In the 1980s, those cities were beginning to experiment with entrepreneurial strategies “acted out (and predicated) on an institutional and fiscal terrain inherited from the 1960s and 1970s” (Peck, 2014, p. 399). The urban “terrain” has since been dramatically reconstituted. In this sense, urban governments do not just rely upon financial markets for the funding of speculative projects, but also for fundamental public services such as education, utilities, healthcare, and mass-transit. As stated by Peck (2014, p. 400), “under conditions of entrenched financialization, governmental incapacitation, and normalized austerity, a pattern of selective risk taking has given way to one of systemic exposure to risk, and what might be called ‘defensive’ entrepreneurialism.”

Through the reading of Harvey (1989), one can understand how the crisis of Fordism and the response of national states restructured not only the hierarchy of cities on a global scale, but also the way in which cities are able to negotiate their way up this hierarchy. Jessop and Sum (2000) introduced a new way of thinking about cities as actors with Schumpeterian tendencies to innovate. By applying their focus to a Hong Kong in the major throes of transition, they also provided one of the first extensions of Harvey’s theory to the post-colonial and East Asian world (Jessop & Sum, 2000). Vives Moro (2011) discussed the reality of entrepreneurial cities in the post-2008 world and provided additional insight into the relationship between tourism, urban planning, and economic growth in an island context. In many ways, the case of Palma speaks to the timelessness of Harvey’s (1989) “digest of urban political economy” (Peck, 2014, p. 396).

Economic vulnerability of Small Island Developing States

As articulated by Jessop & Sum (2000), the entrepreneurial form of economic governance undertaken by cities is largely a response to the process of “glocalisation,” and its tendencies to leave cities and regions highly vulnerable to fluctuations in the global economy. Few places in the world are as vulnerable as those defined by the U.N. as Small Island Developing States. While these often densely populated states are hardly the world’s poorest, their small size and remoteness makes them susceptible to all manners of fluctuations and disruptions in the global economy. Commissioned by the United Nations Conference on Trade and Development (UNCTAD) during the early 1990s, Bruguglio (1995) created an index to explain and measure vulnerability, considering the following characteristics of Small Island Developing States (SIDS):

In explaining the specific variables used to calculate the index in question, Bruguglio (1995) changed his phrasing from “small size” to “exposure to foreign economic conditions,” (p.1619) which quite sufficiently covers the first eight vulnerabilities as seen in Figure 2. These vulnerabilities were collectively operationalized by using the International Monetary Fund’s (IMF) 1991 data on import and export volumes as percentages of GDP. The author jumped to the untested but subjectively logical conclusion that this variable is correlated with the dependence on a narrow range of exports, imported technology, imported expertise, and the status of the country as a price taker. The insularity and remoteness of the states indexed was measured through two variables compiled by UNCTAD for 1991, the F.O.B./C.I.F. terms of shipping ratios and the costs of transport and freight as a percentage of exports. The proneness to natural disasters was calculated using 1991

Figure 2: Economic Vulnerabilities of SIDS

a.) <i>Small Size</i>	Limited natural resource endowments and high import content Limitations on import-substitute possibilities Small domestic market and dependence on export market Dependence on a narrow range of products Limited ability to influence domestic prices Limited ability to exploit economies of scale Limitations on domestic competition Problems of public administration
b.) <i>Insularity and remoteness</i>	High per-unit transport Uncertainties of supply Large stocks (in case of emergency)
c.) <i>Proneness to natural disasters</i>	
d.) <i>Environmental Factors</i>	Pressures arising from economic development Environmental characteristics of SIDS (biodiversity)
e.) <i>Other characteristics of SIDS</i>	Dependence on foreign sources of finance Demographic factors (extreme fluctuations)

UNDRO data concerning the spending on disaster relief per GNP over the period from 1970-1989. According to the author, at the time there were no appropriate proxies for measuring the pressures on the environment from economic development nor biodiversity. The dependence on foreign finance and extreme fluctuations in demography were explicitly excluded due to their high association with GNP per capita. As stated, “the object of the vulnerability index is not to measure economic performance, but economic fragility in the face of external forces” (p. 1621).

Tourism Dependence

While Aruba is one of world’s wealthiest SIDS, it is also one of the most vulnerable to external shocks. According to a 2015 report from the World Travel and Tourism Council, Aruba is directly dependent upon tourism spending for 28.6% of its GDP and 32.5% of its employment. Considering the indirect and induced contribution of tourism, these numbers skyrocket to 88.4% and 90.8% respectively. The World Travel & Tourism Council (2015) states that indirect spending includes private investment in the travel and tourism industry, government spending related to travel and tourism, and the impact of purchases from suppliers. The impact of such indirect spending to GDP and employment far outweighed induced spending, a broader category encompassing the household purchases of those people directly and indirectly employed in tourism. Beyond the fact that Aruba is so highly dependent upon one industry, it is also remarkably dependent upon one market, with 55% of total visitors coming from the United States (International Monetary Fund, 2015).

These “mutually reinforcing types of concentration risk” (IMF, 2015, p.18) mean that with every 1% downturn in the United States economy, growth of the Aruban economy declines 2% for two consecutive years. These effects were felt in the aftermath of the 2008 Financial Crisis, when Aruban Real GDP collapsed by 10% and 4% in 2009 and

2010 respectively (IMF, 2015). Less pronounced downturns were associated with the global decrease in tourism following 9/11/2001 and the disappearance of American teenager Natalee Holloway on Aruba in 2005 (IMF, 2015). The second most important origin market for the Aruban tourism industry has historically been Venezuela, whose economic woes as of late have substantially decreased the purchasing power of most of its citizens.

Aruba’s contemporary economic situation can be directly tied to the country’s own Fordist crisis. From 1930 until 1985, Aruba’s main economic sector was petroleum refining, with exports flowing to the industrial regions of Western Europe and North America. When the Venezuelan government nationalized its crude oil reserves in 1975, refining on Aruba ceased to be profitable for Exxon Mobil. After 10 years of lackluster performance, Exxon closed Lago Refinery in 1985 and Aruba was suddenly faced with 30% to 40% unemployment and a 25% drop in GDP (Ridderstaat, 2007). Thus, the nationalization of oil reserves and the cartelization of the global oil industry, which largely contributed to the crisis of the Fordist-Keynesian system, also forced Aruba to develop a new core industry. In the period between 1986 and 2011, large millions of dollars in FDI fueled large scale developments which tripled the number of hotel rooms on Aruba, thus allowing the number of stay-over tourists increased five-fold. In addition, the Aruba Tourism Authority actively promoted cruise tourism and the number of cruise tourists docking in the Port of Oranjestad increased eight-fold. The increasing number of visitors led to a growth in tourism receipts “from Afl. 283.0 million to Afl. 2413.5 million” (Ridderstaat, Croes, & Nijkamp, 2014).

Paraphrasing Modeste (1994), Ridderstaat et al. (2014) provide the following explanations for the benefits of tourism to national economic growth: “(1) it produces foreign exchange earnings that are essential to import not only consumer goods but also capital and intermediate goods; (2) tourism facilitates the use of resources that are

in line with the factor endowment of a country; (3) tourism creates job opportunities for people at a destination; (4) tourism promotes improvement in a country's infrastructure, benefitting not only tourists but also residents of a destination; (5) tourism is considered a conduit for transferring new technological and managerial skills into an economy; and (6) it is considered a potential for creating positive linkages with other sectors of the economy (e.g. agriculture, manufacturing and other service industries)" (p. 472).

Ridderstaat et al. (2014) provide a thorough review of the existing literature on the so-called "tourism led growth" hypothesis, highlighting the conflicting conclusions reached in different geographical locales and over various time periods. Proponents of the hypothesis such as Schubert, Brida, & Risso (2011) suggest that specialization allows for increasing returns to scale in a destination, the benefits of which spill over into other sectors. Detractors such as Butler (1980), who developed the tourism life cycle theory, argue that tourism destinations become saturated and eventually face decline due to diminishing returns. Following this logic, Jerome McElroy (2006) attributes the relative decline of St. Maarten's position in the Caribbean tourism market during the 1990s primarily to "increased crowding and decreased repeat visitation" (p. 70).

Ridderstaat et al. (2014) assess the tourism led growth hypothesis in the Aruban context by employing "unit root testing, co-integration analysis, vector error correction modeling (VECM) and Granger causality testing" (p. 473). These methods confirmed a two-way causal relationship between tourism receipts and long-term growth in the period from 1972-2011 and the period from 1986-2011. Ridderstaat et al. (2014) employed two separate sample sizes to test whether the returns to growth had diminished over time.² Ridderstaat et al. (2014) concluded that their

results were justification for the Aruban government to "allocate more resources to the tourism industry (for more tourism supply and promotion) aimed at obtaining higher levels of economic growth in the future" (p. 486). It was further suggested that their findings justified investment in ancillary industries such as transport, communication, and agriculture as well as "building and maintaining adequate conditions [for tourism] (e.g. leadership, creativity, innovation and entrepreneurship)" (p.486).

Leadership, creativity, innovation, and entrepreneurship are indeed essential for the long-term endogenous growth of any territory (Uzawa, 1965; Lucas, 1988; Rebelo, 1991, Romer, 1994). Even Harvey (1989), a scholar very much at odds with neoclassical economics, emphasized that the success of entrepreneurial cities and regions depends upon their ability to complement consumption-centered and innovation-centered strategies. Ridderstaat et al. (2014) have edified endogenous growth theory throughout their extensive bodies of work concerning (regional) tourism development, economic growth, innovation, and quality of life (Ridderstaat, 2015; Ridderstaat, Croes, & Nijkamp, 2013a, 2013b, 2016; Nijkamp, 2003; Caragliu, Del Bo, & Nijkamp, 2009; Cracolici & Nijkamp, 2009; Vanegas Sr. & Croes, 2000, 2003; Croes, 2006, 2011). It is thus with a great measure of authority that their 2014 article discusses the crucial question of tourism development and long-run growth.

However, Ridderstaat et al. (2014) considered economic growth to be defined by increases in real GDP, not real GDP per capita. This measure fails to account for the substantial increases in the Aruban population throughout the period of their study. Alberts (2016) has written of the "immigration-dependent extensive growth" which Aruba has relied on for the past three decades, suggesting that for many years the country had done little "to shift economic development towards a more productive, less immigration-dependent and less space-consuming

² Figini & Vici (2010) came to such findings after having performed a cross section analysis over the periods 1980-2005, 1990-2005, and 1995-2005.

direction” (p.89). Aruban real GDP per capita, a strong indicator of productivity, declined at an average rate of 1.1% per year during the 2000s (Government of Aruba: Ministry of Economic Affairs, Social Affairs, and Culture, 2011). It is also important to note that from 2003 through 2008, there was a steady decline in the investment in education as a percentage of GDP (Government of Aruba: Ministry of Economic Affairs, Social Affairs, and Culture, 2011).

When a territory’s path of economic growth is extensive by nature and determined by the logic of inter-Caribbean competition, a great deal of the territory’s “organising capacity” (van den Berg & Braun, 1999) is dedicated towards place marketing and the creation of new spaces for “conspicuous consumption” (Veblen, 1899). In addition, with a destination as highly penetrated by visitors as Aruba, there is scarce capacity, socioeconomically or environmentally, for the further expansion of cruise or stayover tourism (McElroy, 2006; Alberts, 2016). This capacity limitation has been recognized by Robertico Croes (2006) in his insistence on demand-side policies for the value enhancement of tourism on Aruba and in other Small Island Developing States. Value enhancement through efforts to attract a higher-income tourist and spur local consumption through urban redevelopment do not fundamentally call into question the overarching logic of the tourism-led growth hypothesis.

Smart diversification of the Aruban economy

The shock of the 2008 Financial Crisis, exacerbated by the over-dependence of the Aruban economy on tourism, seems to have spurred the cabinet of Prime Minister (PM) Mike Eman to work towards the diversification of the Aruban economy (International Monetary Fund, 2015). The Eman Cabinet is pursuing the development of four “top sectors” key to a “long-term sustainable growth strategy”: green technology, maritime & logistics, creative industries, and value-added tourism (Government of Aruba, 2017, p.

25). The concurrent and complimentary development of each of these sectors depends on the enhancement of the island’s human capital. Furthermore, the importance of ICT connectivity and capabilities cannot be underestimated in the advancement of these sectors (Government of Aruba, 2017). It is thus that Aruba’s form of urban entrepreneurialism shares some elements with the idea of Smart Cities as articulated by Hollands (2008).

The Government of Aruba has been the primary driver of a large local governance coalition which includes, but is not limited to the University of Aruba, the *Water- en Ernergiebedrijf* Aruba N.V., “Aruba Ports Authority, Aruba N.V., ASTEC, Aruba Airport Authority N.V., Free Zone Aruba N.V., Aruba Tourism Authority, Aruba Trade & Industry Association, Aruba Hotel & Tourism Association, Aruba Chamber of Commerce, Central Bank of Aruba, Utilities Aruba N.V., Refineria di Aruba N.V., Bureau of Innovation, TNO Caribbean, Aruba Investment Agency (ARINA), San Nicolas Business Association and Oranjestad Business Improvement District” (Government of Aruba, 2017).

The mobilization of this coalition has been directed towards a large-scale transformation of the island’s infrastructure: the renovation and concentration of the island’s airport and ports, large-scale renewable energy projects, neighborhood renewal, the revamping of major roadways, and the construction of post-modern government buildings. Beyond physical infrastructure, the coalition’s efforts have been geared towards the forging of international partnerships for sustainable development. Such partnerships include Richard Branson’s Carbon War Room, the Clinton Climate Initiative, the Rocky Mountain Institute, Wageningen University and Research Center, Harvard University, the University of the District of Columbia, Gerrit Rietveld Academie, Phillips and Tesla (Government of Aruba, 2016, 2017; PMO Staff, 2016)

Research methodology

This researcher employed qualitative research techniques to determine whether transformation and its underlying regulatory logic in Aruba is entrepreneurial by nature. This research employed semi-structured interviews, with participants selected using purposive sampling. More specifically, the method was heterogenous sampling, or maximizing differences, with the objective of understanding the perspectives of various actors within and affiliated with the Aruban governance coalition. The main benefit of such a strategy is that it allows the

“revealing of key themes and patterns of common understanding shared by the majority of the members of the wider population” (Szabo, 2006, p. 279, as cited by Styśko-Kunkowska, 2014, p. 66). One pilot interview and seven semi-structured interviews were conducted in person, ranging from 35 to 62 minutes of recording. These seven interviews were conducted primarily in English with semi-frequent use of Dutch, one of Aruba’s official languages. These interviews were later transcribed for further analysis. Two brief interviews were conducted with the owners of small and medium enterprises on the Main Street of Oranjestad, Aruba’s capital.

Figure 3: List of Interviewees

Local Government and semi-Governmental Agencies (I-G-1 to 3)	Free Zone Aruba (export processing zone)
	Public Private Partnership Knowledge Center Aruba
	Private architect, formerly employed by the Ministry of Regional Planning, Infrastructure, and Integration
Organizations Global Governance (I-UN-1)	UNDP’s Center of Excellence for the Sustainable Development of SIDS
Foundation for Cultural Heritage Preservation (I-CHP-1)	Stichting Rancho
Institutes of Higher Education (I-HE-1 to 2)	Lecturer and Internship Coordinator, University of Aruba
	Rector, University of Aruba
Small and Medium Enterprises (I-SME-1 to 2)	Clothing shop owner, Main Street, Oranjestad
	Electronics shop owner, Main Street, Oranjestad

In order to situate this research within the wider domain of Dutch Caribbean social science, the researcher reviewed (or drew conclusions from) the qualitative analysis undertaken by van Bets, Lamers, & van Tatenhove (2016) in their study of cruise tourism governance in Bonaire. The seven interview transcriptions were coded using the software NVivo, employing an *a priori* theoretical approach framed primarily around Jessop & Sum's (2000) synthesis of Schumpeter (1934, as cited by Lim, 1990) and Harvey (1989). Furthermore, the coding process analyzed the following: a) the role of the Aruban Government role as *primus inter pares* in the island's governance coalition; b) the concepts of 'glocalisation' and 'glurbanisation' in the Aruban context; c) similarities between Aruba and those cities discussed in the literature review; d) the existence of a distinctly Aruban form of social capital; and e) the economic and geopolitical significance of building a strong network of SIDS. This analysis was cross-referenced with the literature review, policy documents, news articles, adjacent literature, and participatory observation.

Findings

The 'Hollowing Out'/ 'Filling In' of Aruba

The contemporary entrepreneurial governance on Aruba must be examined in consideration of *glocalisation*, as defined by Jessop & Sum (2000), and the regulatory dynamics which have led to the "hollowing out" of Aruban manufacturing. While oil refining has historically been the largest manufacturing industry on Aruba, sugar refining, rice milling, and coffee processing were all significant industries on the island during the post-war era (I-G-1). These industries, which contributed substantially to Aruban GDP and employment during the 1980s and 1990s, have since undergone a drastic decline. This decline can be attributed to the development of the industrial capabilities of Venezuela and Colombia and the European Union's elimination of certain preferential trade

concessions towards its Overseas Countries and Territories, of which Aruba is a member (I-G-1). Furthermore, the Aruban primary sectors of fisheries, animal husbandry, and agriculture have undergone a significant decline over the past fifty years (I-CHP-1).

It is vital to understand that the "hollowing-out" of Aruban manufacturing created the conditions for the expansion of mass tourism on the island. Following ten years of Fordist crisis, Aruba gained its independence from the Netherlands Antilles in 1986. The Netherlands Antilles existed until 2010 as a semi-colonial entity centered on Curacao which was unable to support Aruba financially given its own continuous economic woes. The *Status Aparte* of Aruba created a direct link between the Aruban Government in Oranjestad and the Council of the Dutch Kingdom in The Hague. Furthermore, Aruba's semi-independent status created the space for the International Monetary Fund to negotiate with the struggling Aruban government and the Dutch Kingdom on the preconditions of a loan. A small island nation with an economy in freefall and a social contract with its people was not in a particularly strong bargaining position sitting across the table from IMF Officials.

One of the preconditions of the IMF's loan to Aruba was the Sasaki Plan, under which multinationals mainly based in the United States funneled huge sums of money into Aruba for the mass construction of hotels and other tourism infrastructure.³ Not only did the Sasaki Plan involve very large inflows of FDI, but also significant immigration to staff the newly-built hotels (Ridderstaat, 2002). It is important to note that the Sasaki Plan organized the second wave of tourism expansion on Aruba. The first boom in Aruban tourism occurred during the 1960s under the vision and administration of Juan E. Irausquin (Bongers, 2009). The Sasaki Plan, and mass tourism expansion more generally, could be characterized as a "spatio-temporal fix,"

³ Some figures regarding this expansion have been reported in this paper's review of Ridderstaat, Croes, & Nijkamp (2014).

to the crisis which befell Aruba during the late 1970s and 1980s. This fix became an untenable and unsustainable solution (Jessop, 2006). It is historically notable that the two waves of mass tourism development washed simultaneously over both Aruba and Mallorca, island territories situated on the geographical periphery of North Atlantic Capitalism (Vives Moro, 2011).

During the period from 1986 until 2009, under administrations led by both the *Movimento Electoral di Pueblo* (MEP) and the *Arubaanse Volkspartij* (AVP), the Aruban Government's had a substantial role in mobilizing the country's productive forces around the tourism industry (I-HE-2; I-G-1). Maintaining employment by enhancing the competitiveness of Aruban tourism was the main economic policy of the Aruban Government and the object of many studies by Aruban economists (I-G-1; Croes, 2010, 2011; Ridderstaat, Croes, & Nijkamp, 2013a, 2013b, 2014, 2016). While the Government's ability to mobilize the governance coalition toward tourism development was impressive, the mode of governance employed cannot be considered entrepreneurial using the definitions of Harvey (1989) and Jessop & Sum's (2000).

Aruba's tourism industry arose as one of the most competitive in the Caribbean based mainly on the island's natural endowments of white sandy beaches, the security guaranteed by the island's semi-colonial status, and the communication skills of the Aruban people (I-G-1; I-HE-2). While the hotel and tourism industry in conjunction with the Aruban Government has aggressively branded Aruba as "One Happy Island" for decades, this sort of place marketing is not particularly entrepreneurial and is characteristic of most sun, sand, and sea tourism destinations (Bongers, 2009). In fact, the mass production and promotion of the Aruban tourism product can largely still be thought of as a quasi-Fordist system of mass service production. The Caribbean tourism cartel operates with its own logic of vertical integration, with cruise lines and hotel

chains maintaining near total control over the products and excursions purchased by its guests (I-CHP-1) (van Bets, Lamers, & van Tatenhove, 2016).

The 2008 Financial Crisis and Aruba's entrepreneurial turn

The drastic effects of the 2008 Financial Crisis on the tourism economy of Aruba created the conditions for the AVP's 2009 election victory and the formation of an entrepreneurially-minded cabinet around current Prime Minister Mike Eman (I-G-1; I-H-1). Jessop & Sum (2000, p. 2291) stressed the importance of "strong mayoral leadership" in actualizing an agenda of entrepreneurial governance and cited Goh Chok Tong, the Prime Minister of Singapore, as such an example. While Singapore and Aruba differ greatly in terms of population size and the level of economic development, they are similar in that the UN defines both as Small Island Developing States and both sit at a "strategic location between two great continents" (Government of Aruba, 2017, p. 12)

The form of entrepreneurial governance exercised in Singapore, involving billions of dollars in R&D spending, has resulted in Singapore climbing to the top of the global urban hierarchy in terms of commercial and financial flows (Jessop & Sum, 2000). The city-state is widely known to be the most developed of the World's SIDS in consideration of the UN Sustainable Development Goals. Since the Rio Earth Summit in 1992 Singapore has "trained more than 8,800 SIDS government officials in diverse areas such as sustainable development and climate change, public governance, and economic development" through its "Singapore Cooperation Programme" and its "technical cooperation package for SIDS" (United Nations, 2015).

At the Rio +20 Summit in 2012, Aruban Prime Minister Mike Eman and the world-famous entrepreneur Richard Branson, announced their intentions for the sustainable development of Aruba. With the support of the

New America Foundation, the Netherlands Organisation for Applied Scientific Research (TNO), and other actors in the island's governance coalition, Mr. Eman pledged to meet 100% of Aruba's energy needs with renewable sources by 2020 (Aruba Huis, 2012). This highly-publicized announcement of the government's policy program can be seen unequivocally as "the introduction of new types of urban place or space" "organized around...sustainable development" on a stage of substantial geopolitical and economic importance (Jessop & Sum, 2000, p. 2290).

This moment in Rio marked the international articulation of an entrepreneurial policy consensus which had been developing since the AVP's election in 2009. The cabinet had already begun embarking on a program of green energy retrofitting, neighborhood renewal, (mega) infrastructure projects, and efforts at economic diversification. This occurred with a rationalization of the public sector centered around the downsizing of public departments and a restructuring of the social insurance system geared towards sovereign debt management and an upgrading of the national credit rating (Government of Aruba, 2017). The government had also managed to reestablish a KLM flight between Amsterdam and Aruba and through such organizations as the Aruba Huis in The Hague and the Aruban Investment Agency began the active pursuit of partnerships with "world renowned institutions in the public, private and educational sector to pursue mutual ambitions to drive innovation in energy sustainability" (Government of Aruba, 2017, p. 26).

Drawing from Harvey (1989), Jessop & Sum (2000) declared that entrepreneurial "strategies are real and reflexive. They are not 'as if' strategies, but are more or less explicitly formulated and pursued in an active, entrepreneurial fashion" (p. 2289). Beginning in 2009, the current Aruban government has systematically introduced "new methods of space or place production to

create location-specific advantages for producing goods/services" including "new physical, social and cybernetic infrastructures" (Jessop & Sum, 2000, p. 2289).

Public-Private Partnerships as a speculative form of urban planning

One prominent example of such a new method is the introduction of the Public-Private Partnership (PPP) concept for two large roadway projects, the Green Corridor and the Watty Vos Boulevard (I-G-2, I-HE-1). Harvey had critiqued PPPs (1989, p. 7) as "speculative in design and execution and therefore dogged by all the difficulties and dangers which attach to speculative as opposed to rationally planned and coordinated development." However, Harvey stressed that not all PPPs involve the complete absorption of risk by the public sector. The Green Corridor and Watty Vos Boulevard projects, based largely upon the Design Build Finance Maintain Operate (DBFMO) model pioneered by the Dutch *Rijkswaterstaat*, were reported to exemplify sound alignment of risks (I-G-2, I-HE-1). On the other hand, the property rights to the newly built Multifunctional Public Offices and the redeveloped Horacio E. Oduber Hospital have been transferred to the projects' investors, meaning the properties could be sold if the Aruban government fails to pay its installments (I-G-2).

Two further obstacles in the successful implementation of the Dutch PPP model on Aruba are the inadequacy of the national spatial plan and a paucity of demand assessments for infrastructure projects (I-G-2; I-G-3; I-HE-1). The Aruban Government has taken efforts to market its experience with PPPs to other SIDS and has thus developed somewhat of a reputation for its fondness for such projects (I-G-2; I-UN-1). There have been a few cases of the Aruban Government being approached by foreign property and real estate interests with their own visions for PPP projects (I-G-3). While as of now the relevant ministries have not committed to any such projects

proposed from the outside, it could be difficult for Aruba to advance a system of “rationally planned and coordinated development” if the island becomes a *popular* site for PPPs which require rationality or coordination to be set aside to garner investment. While there are indeed many problems associated with PPPs in developing countries and in advanced capitalist countries such as the United States and Spain, this new method of space production has reportedly greatly improved the efficiency of Aruba’s Department of Public Works (I-HE-1; I-G-2; I-G-3).

Modernization and agglomeration of the island’s (air)ports

In 2016, the Aruban Government and Aruba Ports Authority completed construction of a new container port and industrial park in the Barcadera area, adjacent to the island’s international airport (Government of Aruba, 2017). The container port had previously been part of the same facility as the cruise port in downtown Oranjestad, where upwards of 90,000 passengers dock per month during the busy winter season. (Aruba Ports Authority N.V., 2017).⁴ Louis Posner, the Chairman of the Board of Aruba Ports Authority has suggested that this relocation signals “the start of a new era for Aruba” (Government of Aruba, 2017, p. 11). Employing a theoretical welfare analysis of cruise and container port traffic in developing countries and an empirical case study of St. John’s, Antigua, Wood (1982) concluded that the construction of a self-standing container port leads to unambiguous welfare gains. This gain is said to stem from improvements in the efficiency of container throughput which reduces the high price of imports to small islands, one of their largest economic vulnerabilities (Bruguglio, 1995). This problem of high shipping and processing costs is even more pronounced concerning intra-Caribbean trade than inter-regional trade (I-HE-2; I-G-2).

⁴ See Ridderstaat, Oduer, Croes, Nijkamp & Martens (2014) for an analysis of “Impacts of seasonal patterns of climate on recurrent fluctuations in tourism demand: Evidence from Aruba”

Beyond improving the efficiency of container throughput, the engineering of a geographical concentration of the airport, seaport, and Free Zone Aruba is yet another way in which the Eman Cabinet has sought to cultivate Aruba’s “sustainable advantage” as a “learning region” (Florida, 1995, p. 533). This concentration’s main aim is the promotion of agglomeration economies in the top four sectors: green technology, maritime & logistics, creative industries, and value-added tourism (Government of Aruba, 2017; I-G-1). For instance, the Free Zone Aruba hopes to take advantage of the flow of people and goods through the airport and ports to develop the island as a showcase for interactive media development, Dutch design, sustainable innovation, and the ancillary industries of consultancy and legal services (I-G-1).

One entrepreneurial action of the pre-2009 governments was the Beatrix 2000 project, the expansion of the island’s Queen Beatrix International Airport, financed by the sale of revenue bonds to U.S. investors (Croes, 2006). Beyond a runway capacity expansion, the project involved the creation of a separate terminal for departures to the U.S. and a new arrivals hall. A more recent method of “space or place production to create location-specific advantages” (Jessop & Sum, 2000, p. 2290) was the airport’s introduction of the U.S. preclearance facilities, allowing U.S. Customs & Border Protection agents to screen passengers in Aruba so that all flights to the United States could be treated as domestic (I-G-1). This process is said to have increased the efficiency of flights between Aruba and the United States, thus making Aruba an even more appealing destination for passengers and airlines alike.

Altering the cruise tourism experience on Aruba is another prime focus of the island’s governance coalition. It had previously been the case that “cruise ship passengers pass[ed] through an inelegant barbed wire security gate before arriving at an unappealing taxi drop off. Signage and wayfinding to direct visitors to the downtown [was]

non-existent” (University of Pennsylvania Department of City & Regional Planning , 2010, p. 12). The construction of new multi-purpose harbor spaces has become a prototypical way for cities to “modify the spatial division of consumption through enhancing the quality of life for residents, commuters or visitors” (Jessop & Sum, 2000, p. 2290). Much as the development of Baltimore’s Inner Harbor was emblematic of that city’s entrepreneurial turn in the late 1980s, the “repurposing” of the Port of Oranjestad in collaboration with Port of Amsterdam International is one of the signature projects of the second Eman Cabinet (Government of Aruba, 2017, pp. 11-12; Harvey, 1989).

In reference to Baltimore’s Inner Harbor and New York City’s Southstreet Seaport, Harvey (1989, p. 8) wrote the following:

The construction of such places may, of course, be viewed as a means to procure benefits

for populations within a particular jurisdiction, and indeed this is a primary claim made in the public discourse developed to support them. But for the most part, their form is such as to make all benefits indirect and potentially either wider or smaller in scope than the jurisdiction within which they lie. Place-specific projects of this sort also have the habit of becoming such a focus of public and political attention that they divert concern and even resources from the broader problems that may beset the region or territory as a whole.

In the case of the Port of Oranjestad, there has indeed been a cultivation of a “public discourse developed to support” the renovation. The Aruban Government has stated that “commensurate with the government’s approach to not only focus on material success, the project should emphasize: The quality of the lives of its citizens, happiness of its families,

a renovation of the sense of public space, and the very way Aruba’s citizens and visitors experience green spaces, parks, recreation centers, etc.” (Government of Aruba, 2017, p. 12). Whether the Port of Oranjestad’s “large scale commercial development” (Government of Aruba, 2017, p. 11) takes shape as a “Caribbean Epcot Center,” (I-G-1) a start-up hub, or simply as an extension of Oranjestad’s already abundant conspicuous consumption spaces, it will be more “speculative construction of place rather than [an effort towards the] amelioration of conditions within” Aruba (Harvey, 1989, p. 8).

Another recent improvement has been the construction of a 14,400-panel solar park at the airport which serves the dual-purpose of reducing the facility’s energy costs and in developing a discourse of Aruba as a forward-looking, sustainability-minded, and entrepreneurial island. In the coming years, the Government of Aruba and the Aruba Airport Authority will be pushing ahead with a \$200 million expansion and renovation of the airport “to address the airport’s capacity constraints, customer experience, and sustainability, [and] in order to set the airport on a path of continued growth for the decade ahead” (Government of Aruba, 2017, p. 17). This expansion is being pursued in conjunction with the Aruba Tourism Authority’s efforts to “open new markets” (Jessop & Sum, 2000, p. 2290) by actively promoting the island in “Colombia, Argentina and Chile with special focus on Mexico and Peru” (Government of Aruba, 2017, p. 22).

Value-added tourism, neighborhood renewal, and (in) tangible cultural heritage

The Aruban Government’s promotion of value-added tourism is entrepreneurial considering two of Jessop & Sum’s (2000) criteria, “opening of a new market” and employing “new methods of space or place production to create location-specific advantages” (p. 2290). Agriculture has recently experienced a renaissance of sorts in Aruba due

to “an increased demand for locally-grown and culturally appropriate foods...generally associated with higher-end tourism markets” (Government of Aruba, 2017, p. 33). The Department of Agriculture and the *Water- en Energiebedrijf Aruba N.V.* have supported and subsidized local farmers in the cultivation cilantro, mushrooms, grapes, dragon fruit, and other produce (Government of Aruba, 2017). The Government has also been promoting sustainable tourism, citing the Bucuti & Tara Beach Resorts energy-saving practices as a model for other hotels on the island (Government of Aruba, 2016). Beyond presenting Bucuti & Tara as a model, it is unclear what concrete measures the Aruban Government is currently taking to attract more environmentally conscious tourists.

In its aim to retain tourist spending in the domestic economy, the Aruban Government has pursued a strategy of neighborhood renewal in both Oranjestad and San Nicolas, the island’s two main urban centers (Government of Aruba, 2017). The economy of San Nicolas has suffered greatly with each of the subsequent closings of the Refinery over the past three decades, with a substantial demographic flight having occurred in the mid-1980s (Ridderstaat, 2002). Since the latest closure of the refinery in 2012, the Eman Cabinet has invested \$42 million in urban renewal in San Nicolas and has declared the area eligible for many corporate tax incentives (Government of Aruba, 2017). The Government has also pledged to drive “the development of San Nicolas from a branding and product development perspective, ensuring that visitors can find the culturally-rich content that the area has to offer through marketing efforts” (Government of Aruba, 2017, p. 32).

One of the most recognized neighborhood renewal initiatives on the island is the Oranjestad Streetcar, a hydrogen-fuel cell powered vehicle which runs from the cruise terminal along Oranjestad’s Main Street and back again. Scarcely any of the long-term residents of Aruba use the streetcar and reduced motor traffic has reportedly led to

a lag in sales at some of the shops on Main Street (I-HE-1; I-SME-1; I-SME-2). While the Streetcar has been somewhat controversial, Prime Minister Eman has admitted a certain degree of fault in the planning and execution of the project. While the creation of consumption spaces is prone to the sorts of socio-economic pitfalls discussed by Harvey (1989) and Vives Miro (2011), few can object to the restoration and maintenance of Aruba’s tangible cultural heritage. The *Stichting Monumenten Fonds Aruba* has been working for the past twenty years with just such a mandate, having recently collaborated with the Eman Cabinet on the restoration of such historical monuments as the California Lighthouse, the Lime Kiln of Rancho, and the water towers of Oranjestad and San Nicolas. Community leaders are generally pleased with the maintenance and promotion of Aruba’s monuments for the enjoyment and education of residents and tourists alike (I-CHP-1; I-G-3).

As Vives Moro (2011) has stressed, the preservation of both tangible and intangible cultural heritage faces many challenges in a “tourist city.” As evidenced by the experience in Palma de Mallorca, neoliberal urban policies tend to prioritize “flexibility” and “dynamism” in the international financial markets over the history and culture of neighborhoods. When the Eman Cabinet emphasizes the importance of “creating and maintaining urban areas in need of beautification,” (Government of Aruba, 2017, p. 32) the balance between economic flexibility and cultural preservation should be carefully measured. As Vives Moro (2011) has written, the supply side gentrification process typically begins with the State’s labelling of neighborhoods with such language as “Areas in a Bad State of Decline” (p. 9). This is particularly the case with neighborhoods located in or near a city’s downtown, with their “beautification” being more likely to result in the closure of the gap between the rents being earned and potential rents. Gentrification, whether driven by supply-side or demand-side forces, often has deleterious effects on the cultural heritage of neighborhoods and even entire cities (Vives Moro, 2011)

The historic neighborhood of Rancho in downtown Oranjestad has been identified by the Aruban Government as one of “more than 20 different neighborhoods that need social-economic attention” (I-CHP-1). Such identification can be beneficial when it is followed up by state investment in “restoring and reeducating people” in those troubled neighborhoods. It is too often the case that urban governments prioritize the construction of “place” over the implementation of social-economic policies aimed at combatting such social ills (Harvey, 1989). In historic neighborhoods such as Rancho, community leaders and foundations are collaborating with the Aruban governance coalition and its international partners towards the preservation of the island’s intangible and tangible cultural heritage (I-CHP-1). The goal of maintaining cultural integrity is supported by such platforms as the Dutch Caribbean Heritage Platform, an organization which has been established to foster solidarity and knowledge sharing between six islands with a common colonial history (I-CHP-1).

The differentiated political economies of “territory” and “place”

In discussing speculative infrastructure projects, Harvey (1989, p.7) made a clear distinction between the political economy of “territory” and “place.” Policies to affect the former are “designed primarily to improve conditions of living or working within a particular jurisdiction” (1989, p. 7). On the other hand, efforts towards “place” construction “can have impacts either smaller or greater than the specific territory within which such projects happen to be located” (1989, p. 7). The current Aruban Government has been busy with projects concerning the cultivation of its territory through the provision of social housing and its efforts to enhance the quality of education for all its citizens. The Green ‘S’ Cool project to involve students and their parents in sustainable development is one such initiative (Department of Education Aruba, 2014). Furthermore, the

Government has undertaken the retrofitting of many of the island’s schools and community centers with solar panels, involving students and community members in the process (Government of Aruba, 2016).

However, many projects which seem to be concerned with the cultivation of “territory” are truly geared towards the construction of “place,” having wide-ranging global causes and consequences. A notable example is the Smart Community Aruba, a “20 unit residential neighborhood that functions as a living laboratory for companies from around the world to research, test, demonstrate and certify the latest sustainable technologies for communities” (Government of Aruba, 2017). The Smart Community, the construction of which has been significantly delayed, is a prime example of a project which has required the participation of many of the main actors in Aruba’s governance coalition. TNO and the Eman Cabinet are the main driving forces behind the Smart Community project with the following entities supporting its development and eventual maintenance: Utilities Aruba N.V., its production subsidiary WEB N.V., its distribution subsidiary ELMAR N.V., the social housing agency FCCA, and the telecommunications firm SETAR.

Aruba’s narrative of entrepreneurialism and the global “urban hierarchy”

The cultivation of expertise in sustainable development and the active narration of Aruba as a “knowledge-driven, entrepreneurial economy” (Government of Aruba: Ministry of Economic Affairs, Social Affairs, and Culture, 2011, p. 2) have been key factors in the Aruban Government’s efforts to “alter the place” of Aruba within the global “urban hierarchy” (Jessop & Sum, 2000, p. 2290). One way in which this has occurred is through the Government’s Green Gateway policy, which aims to position Aruba as a “regional gateway” (Jessop & Sum, 2000, 2290) for trade between Europe and the

Americas. Through regular contact with foreign trade commissions and through the Arubahuis in The Hague, the Free Zone Aruba seeks to “capture mobile capital” (I-G-1) within the context of growing trade between Latin America and the Global North. Aruba’s representation at the European Union in Brussels fulfills similar capacities. How the ensuing EU-Mercosur trade agreement will affect Aruba remains to be seen (I-G-1).

In 2013 and 2014, the Government of Aruba themed its annual Green Aruba Conference as “Green Aruba where Europe meets the Americas,” attracting companies and public departments from across the world to network and share knowledge (Free Zone Aruba, 2014). This conference is only one of many initiatives of economic diplomacy undertaken by the Eman Cabinet, which has sent trade missions to Colombia, Panama, Miami, and Cuba. (Nicolaas, 2016). Such positioning as a gateway to Latin America and the Caribbean bears many resemblances to Hong Kong’s active positioning as a gateway to the PRC during the 1980s and 1990s (Jessop & Sum, 2000).

Per Jessop & Sum (2000 p.2290), another way of “refiguring or redefining the urban hierarchy and/or altering the place of a given city within it” is through the development of a “virtual region based on interregional co-operation among non-contiguous spaces.” The world’s Small Island Developing States can be said to constitute a “virtual region” of territories, sharing colonial histories, creole cultures, and the same set of economic vulnerabilities (Bruguglio, 1995). As documented by Bruguglio (1995), the UN has long served as a platform for the “inter-regional cooperation” of the world’s SIDS. As discussed above, Singapore has been the hegemon of this “virtual region” for decades, having provided technical assistance and all manner of development aid to its fellow SIDS. With the specter of climate change and sea level rise haunting these highly vulnerable territories, the UN convened the Third International Conference on SIDS in Samoa in 2014. The

outcome of this conference was the UN member states’ recognition of the SIDS Accelerated Modalities of Action (SAMOA) Pathway, a document which declared the importance of international investment in and support for SIDS’ transition towards sustainable development (United Nations General Assembly, 2014).

Following the Samoa Conference, the Aruban Government and the Kingdom of the Netherlands approached the UN Development Program with the idea of creating what is now the Aruba Center of Excellence for the Sustainable Development of SIDS (COE) (I-UN-1). This organization, established in October 2015, exists with the mandate of “help[ing] the SIDS around the world in sharing what they are doing in sustainable development so that they do not reinvent the wheel [and] so that they don’t spend money that the others have spent. This is especially important for SIDS because there are no economies of scale” (I-UN-1). Given the re-scaling of statehood which has unfolded over the past few decades and the very close relationship between the world’s SIDS and the UN, the Aruban Government’s COE initiative can be considered a post-modern form of “finding new sources of funding from the central state” (Jessop & Sum, 2000, p. 2290) or gaining a “competitive edge with respect to redistributions of surpluses from central governments” (Harvey, 1989, p. 10). While these inter-scalar strategies are at play, the COE is by no means “an Aruba promotion center,” (I-UN-1) but rather “a platform for the South—South cooperation and the exchange of knowledge on renewable energy, public private partnerships, water management, tourism, and the environment” (Government of Aruba, 2017, p. 27).

The University of Aruba as the vanguard of Harvey’s “progressive urban corporatism”

An initiative related to the COE is the University of Aruba’s (UA) Green Faculty. Beginning in 2019, the

Green Faculty will coordinate a multidisciplinary bachelor's degree in conjunction with KU Leuven, training its students to develop "smart small island solutions" (I-HE-2) aimed at addressing many of the vulnerabilities identified by Bruguglio (1995). Beyond the bachelor's program, the faculty will focus on life-long learning, "reskilling the workforce," (Jessop & Sum, 2000, p. 2290) and cultivating the human capital necessary for sustainable development (I-HE-2). Much of the funding for the Green Faculty comes from the EU, another example of Aruba "finding new sources of supply to enhance competitive advantages" (Jessop & Sum, 2000, p. 2290). The UA is now seeking to involve Oregon State University in the establishment of the Green Faculty (Government of Aruba, 2017; I-HE-2). This initiative is part of a much wider effort towards the internationalization of the UA. Less than three years ago, the UA signed on to the EU's Erasmus exchange program and has since established approximately 40 exchange connections in Europe, Canada, and the U.S. (I-HE-1, I-HE-2).

Within the Aruban community, the UA is in the beginning stages of a collaboration with the recently established Academy of Fine Arts and Design Aruba in the hope of becoming "a way more flexible academic community in the future" (I-HE-2). Partly by incorporating creative education into the university curriculum, the UA seeks to set the agenda for a sustainable development-oriented education from pre-school onwards. Given the predominance of the tourism sector on Aruba, there is a great need for education in sustainable tourism. While there are already sustainability-oriented hospitality programs at both the UA and the MBO institution Colegio EPI, the Aruban Government has declared that it will "establish a collaborative public-private-academic entity as a center of excellence for tourism in Aruba with the support of internationally renowned tourism education institutes in Europe and the Americas" (Government of Aruba, 2017, p. 32).

Following Uzawa (1965), Lucas (1988), Rebelo (1991), and Romer (1994), substantial investment in the University of Aruba is one of the best avenues for Aruban society to actualize its sustainable development agenda. Since "no other university in the world will have the [primary] focus of doing research and understanding the Aruban experience," (I-HE-2) it is the UA's responsibility to address those issues most pertinent to Aruban society. Through the articulation of the popular will by organic intellectuals, the UA has the capacity to fundamentally alter the socio-economic and environmental policies of the present and future Aruban Governments. By doing so, the UA could work to direct the productive forces of the island's governance coalition away from "place-making" and towards the cultivation of "territory" with sustainable development as the guiding principle. In this sense, the UA has the potential to act as the vanguard of the "progressive urban corporatism" which Harvey (1989) had envisioned.

For this "progressive urban corporatism" to take shape, leaders of Aruba's governance coalition need to step outside of the "framework of zero-sum inter-urban competition for resources, jobs, and capital" (Harvey, 1989, p. 5). As Harvey (1989) suggests, an island-wide coalition striving towards explicit social goals can send ripples far beyond its borders by "build[ing] alliances and linkages across space" (p.16). This is already beginning to unfold with Aruba assuming a leadership position in the global network of SIDS. Whether Aruba will use this position "to challenge the hegemonic dynamic of capitalist accumulation" remains to be seen. If Aruba is to help lead the planet towards sustainable development, launching such a challenge is imperative.

Conclusion & Discussion

This research has demonstrated that Harvey's (1989) theory of entrepreneurial governance and Jessop & Sum's (2000) definition are indeed useful in understanding

the Aruban Government's socio-economic policy agenda. Thus, the research has also opened a line of inquiry whereby the Cultural Political Economy approach can be used to examine the economic conditions of Small Island Developing States (SIDS). While the Aruban Government has nobly embraced the SDGs as guiding principles for the island's economic development, this research demonstrates that the regulatory regime in place does not necessarily match the narrative.

Regulating the use of existing and future technologies is the main tool at the disposal of any government. The Aruban Government must continue to promote sustainable innovation to fully recover from the 2008 crisis and meet the SDGs. It is important that the Aruba's education system aids the island's residents in understanding international context behind the societal transformation underway on their island. The unpredictability of innovation cycles requires that the world's governments be not only flexible, but vigilant in recognizing the risks of neoliberal agendas. The effective combination of regulation and narrative determines the direction in which any society's productive forces are channeled. Since Prime Minister Mike Eman's announcement at the Rio +20 Conference, the narrative of sustainable development has been permeating all aspects of Aruban society and the societies of the world's SIDS. The citizenry must apply sufficient pressure to ensure that the Aruban Government follows through on this narrative with a regulatory regime to match.

Capitalism's failure to deliver sufficient levels of nutrition, health care, and education to every human was the impetus for the United Nations to convene the Rio +20 Summit. Looking beyond the human condition, the extractive tendencies of capitalism, communism, and other systems of mass production have deprived Life on Land (SDG 15) and Life Below Water (SDG 14) of the healthy ecosystems needed to thrive. Aruba's struggle to preserve its biodiversity and marine environment

is evident of these effects (Zilber, this issue). Within a framework of zero-sum inter-territorial competition, it is difficult to effectively implement the policies needed to achieve the SDGs. For this reason, Partnerships for the Goals (SDG 17), is arguably the most important. It is unlikely that Responsible Consumption and Production (SDG 12) can be implemented in a neoliberal global system where regulatory undercutting is encouraged. A global culture of "conspicuous consumption" (Veblen, 1899) is certainly not conducive to the responsible management of solid waste, particularly in countries of the Global South (Bultrini, this issue).

Partnerships for the Goals (SDG 12), such as the Aruba Center of Excellence, are essential for Reducing (all) Inequalities (SDG 10) and for advancing the worldwide movement towards Peace, Justice, and Strong Institutions (SDG 16). Such institutions are the only channels currently available to ensure that there is No Poverty (SDG 1), Zero Hunger (SDG 2), Good Health and Well-being (SDG 3), Quality Education (SDG 4), Gender Equality (SDG 5), Clean Water and Sanitation (SDG 6), Affordable and Clean Energy (SDG 7), Decent Work and (intensive) Economic Growth (SDG 8). It is important that such goals as Sustainable Cities and Communities (SDG 11) and Industry, Innovation, and Infrastructure (SDG 9) are not co-opted and used to justify the speculative construction of place. It is equally essential that Climate Action (SDG 13) be taken seriously and that multinationals not be allowed to green-wash their production and distribution practices.

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I have always believed in applying academic knowledge and putting it into practice in real work environments. Both personally and academically, I feel the lack of interaction with local companies is a shame. A collaboration between educational institutes and the former would allow students to apply their knowledge in a real work environment and receive valuable feedback. My personal desire for such an opportunity, lead to me conceptualise and propose this idea in one of my university assignments.

The feedback I received was positive, indeed such a program would be beneficial for the University. A week later I discussed the possibility of creating this programme with my teacher, whom mentioned the UAUCU programme. This program immediately sparked my interest, as it would be a wide range of international students from different academic backgrounds all working together on independent research, aiding each other in the process. Two months later, I sat with Eric and six other students in the garden of the University

to meet the UCU students taking part in the programme. After the meeting, I felt nervous, as it seemed many of the UCU students had already begun their research, and more importantly knew exactly what their respective foci were. A couple of months down the line, after completing all my exams the UAUCU programme kicks off. The first two weeks consisted of visiting the island, which proved very informative as many of the UA students and myself discovered and learnt knew things about Aruba. For instance, I learnt about the environmental situation on the island something, which I had previously never thought of. The car journeys allowed us to get to know the UCU students, through many conversations in the car and over lunch.

Overall, I am grateful to have joined the UAUCU program. Not only has it opened my eyes to the environmental problems Aruba is facing but also gave me the opportunity to work with a marvellous group of people from all around the world. Thanks to this program, I have made many new friends and broadened my international network. I will always remember and look back on this experience fondly.

The synergy between academia and private sector

Success factors towards a healthy partnership

by Rodolfo Andres Rodriguez

Introduction

Alexander, S. (1931) describes a university as an association where scholars and teachers engage in a collaborative atmosphere. Universities serve the purpose of acquiring, communicating and/or advancing knowledge in order to peruse various sciences which are essential for the professions or higher occupation in life. However, recently there has been a noticeable shift in the actual role of a university. Since the late 70's the relationship between academia and industry has been growing in significance (Caloghirou et al. 2000). Universities have been shifting towards the roles of key contributors to wealth generation and economic development of a country (Mansfield and Lee, 1996). Due to the nature of current knowledge based economy, in which information and knowledge are categorized as a source of competitiveness (OECD, 2005) academic research plays an important/essential role. Academic research can be integrated into the economic cycle to drive innovation and economic growth (Debackere 2000). As a consequence of that, a shift in global university policy making is taking place. Universities now also serve as a catalyst for both human capital and a seed-bed for new firms in order to stimulate innovation. Universities are now transcending from traditional universities to a more collaborative environment in order to also drive economic growth. This has given birth to the concept of universities

acquiring strategic partnerships. The purpose of these strategic partnerships is to best combine the discovery-driven culture of a university and the innovation-driven environment of the private sector.

The aim of this research is to analyze the current level of intensity of collaboration between university and private sector, from the point of view of teachers, students, and local companies. The purpose of this research is to help create an environment that caters to the educational, economic and social benefits of a nation which will benefit both the university and private sector. This also has the potential to build stronger communities and expand the community's capacity to meet their own needs. In order for Aruba to compete on a global scale, these changes are not only a requirement but a must in order to stay relevant and also to be attractive for future stakeholders.

Research Subject

This research aims to address which factors could contribute to an effective university – private sector interaction in Aruba by presenting the different attributes that would make the University of Aruba an attractive partner for the private sector. The university and private sector can apply different partnership structures to produce a seamless interaction.

To further analyze this subject, I formulated the following research questions:

1. What is the current university - private sector interaction?
2. Are university students being exposed enough to the private sector?
3. Who are the stakeholders of such university - private sector partnerships?
4. What benefit would these partnerships bring for all stakeholders

Methodology

Research Design

The method used for this research is a qualitative research in the form of interviews. With interviews, the researcher aims to explore the views, experiences, beliefs and/or motivation of individuals. Interview research can be divided into three fundamental types interviews which are: structured, semi-structured and unstructured. (Britten, N. 1999)

The structure chosen for this research was a semi-structured one-on-one interview. This research method was preferred as semi-structured interviews give the interviewer the opportunity to ask both open and closed ended questions (Wholey, J. S. 2010), thus giving the interviewer the opportunity to ask *why* or *how* follow-up questions. By doing so the interviewer also has the freedom to slightly drift around the topic of the interview. The semi-structured interview is preferred because in a structured interview the interviewer has to adhere to a standardized questionnaire, which is less engaging, allowing the opportunity to miss crucial

information. There are multiple factors one has to take into consideration while conducting a semi-structured interview. Due to their nature they tend to be time-consuming and labor intensive. (Wholey, J. S. 2010). It is required for the interviewer to be smart, knowledgeable and be able to adapt new questions based on the live information gathered.

With the help of the selected research method, I aim to uncover the state of collaboration between the university and the private sector in Aruba, alongside with which factors could further improve this collaboration. These interviews will be conducted amongst students, teachers at the University of Aruba and local companies. By interviewing stakeholders, I can further understand what is the current state of collaboration according to them, and what factors they consider to be essential to enhance this collaboration.

Sampling method

The sampling method used for this research was purposive sampling; the sampling of the respondents was done based on the criteria that they were the main stakeholders for this research topic. (Palys, T. 2008) For this research, interviews were held amongst 11 participants. The mixture of respondents ranges from University of Aruba students and teachers to companies in the retail and tourism sectors. The distribution of respondent for this research is as follows: 4 students (2 of the 3rd year and 2 of the 4th year secondary education), 4 lecturers, 3 representatives of local companies.

Respondents

The students all study at the FEF but they have different backgrounds that set them apart: one group consists of students that graduated from an MBO (intermediate vocational education) such as EPI. The other group consists

of students that graduated at HAVO/VWO level (Colegio Arubano). The motive behind this segmentation is that students from EPI have been exposed more to the practical side of their studies in comparison with students that finished their HAVO/VWO which is more theoretically oriented. The groups were also divided into academic years: two 3rd year students and two 4th year student. The former MBO students have had the opportunity to do internships prior to entering the university, where for most HAVO/VWO students this would be their first exposure to the workplace environment.

Teachers that would be interviewed for this research, had to meet one of the following criteria. Firstly the courses that they teach should be courses where students are able to execute their theoretical knowledge in a practical setting with ease. Secondly, they would have to be aware of the current collaboration between the University of Aruba and the local companies. Lastly, they would preferably be teachers that work in the private sector and the public sector. By interviewing teachers that meet at least one of those criteria's the information gathered would provide different views on what factors would be beneficial for a better collaboration between academia and private sector. These interviews will also serve to gather insight on what added values partnership programs between university and private sector would bring.

The companies interviewed were chosen by sectors in which they operated. Two companies that form part of market segments of Aruba were chosen from the retail and tourism/transportation market. It is essential for this research to get the point of view on the importance of collaboration between the university and the private sector from the perspective of the companies that would benefit from these strategic partnerships. In this way, they could provide essential information when it comes to establishing partnerships and the factors needed to be taken into consideration for a successful partnership.

Language

There will be no pre-determined interview language for the interviews. The reason behind this is to provide the interviewee the most comfortable environment in which they can express their opinion.

Data analysis

This chapter consists of the analysis of the different interviews conducted with lecturers and students at the University of Aruba as well as with local companies. Following what was explained in the method section this analysis would be done in three parts. The analysis will be conducted on the recorded interviews with notes taken during these interviews.

Teachers

In the interviews conducted with the lecturers from the University of Aruba, I was able to gauge the current collaboration between local companies and the University of Aruba and different approaches on how the university can strengthen the current collaboration. According to the lecturers I interviewed, the university does get approached by different local companies to help them with certain tasks. Students mostly help with these requests, if the task is not suited for a student then a teacher will be approached for help. Another instance where university and local companies interact is during the period when students are in search for an internship or are looking for a company in which they are able to do their apprenticeship or their graduation thesis. To help ease the process of acquiring an internship the university provides students with a list of different companies that former university students have had the chance to do either their internship or their graduation thesis at. During the interviews, it was also stated that, even though there is collaboration with the private sector, this collaboration does not happen

frequently and it is not well structured to maintain a proper collaboration.

The topic of “The University of Aruba as a research institute” was also discussed. Amongst the interviewees, there were different points of view on this topic. In some cases, the lecturers did not believe it would be the most optimal path for the university to take if the university were to serve the role of a research institute, others did see a role for the university as an institute for research for the private sector.

Students

The students’ views on the current collaboration between the university and the local companies did not differ from each other. Their main concern with the collaboration was that even though the university has a list of companies that past students had the opportunity to do their internship/graduation thesis at, the list provided, according to the students, is not updated with the latest information. They were asked what their thoughts were on applying their theoretical knowledge in an actual private sector environment, where the end results of their assignment/project could be tested in a real life scenario, from which they could get feedback on the tactics used. The response to this approach was very positive. They feel that this approach would be very much of use to them, to further develop their academic knowledge and build a foundation towards their future careers. Their views on the topic of “the University of Aruba as a research institute” were not very positive. They feel that the university should not have research but teaching quality as the first priority.

Local Companies

The companies interviewed had already in some way or other collaborated with the University of Aruba, be it for an internship or by requesting help for a certain task. They indeed believed that collaboration between academia and

private sector plays an important role in the development of a nation. For the university to form strategic partnership with the private sector is a necessity in order to further improve the community. Another point made during the interviews was the form these partnerships/project would take, and factors that would have to be taken into consideration. The most common factors were privacy and timeframe. They felt that in order to properly cooperate there would have to be mutual agreements on when these collaborations could take place to provide all stakeholders the best outcome. Lastly in the interview with the company that is focused on promoting collaboration on the Aruban market, they indicated that it is a necessity for the University of Aruba to collaborate with the local private sector. It was also stated that there are many professional leaders on the island who are willing to give guest lectures to the students at the university. These interactions would lead students to broaden their connections and also aid their professional development.

Conclusion & Recommendations

The conclusions are drawn from the analysis of the data gathered from the interviews, followed by recommendations on what type of partnerships/collaboration the university could consider.

The conclusion on the current collaboration between private sector and university according to teachers and students overlaps in certain aspects. Both participant groups believe that there is collaboration between the two sectors and also that this collaboration could be improved. From the analysis, it can also be noted that students have an interest in more interactive projects/assignments in the sense that projects/assignments could use information provided by local companies, this could be applied in the future in an actual real-life scenario. A student could thus test and acquire feedback on their ideas. This also gives the students a sense of fulfillment when they see their applied theoretical knowledge used in practice.

What companies found to be of most importance to them was the time frame and what degree of information would be required from them. The time aspect of these collaborations would be of importance, so as to provide students with the proper guidance during projects. The availability of information would differ from company to company, seeing that sharing certain information might be acceptable for a company whereas for another company this would be against their policy. Although there is a willingness from different private sector professionals to give guest lectures at the university, the respondents are not involved in such activities at this moment.

Synergy: The combined effect of individuals in collaboration that exceeds the sum of their individual effects. - Stephen Covey

Recommendations

Based on the conclusions stated above these are possible recommendations the university could implement to better current collaboration between the university and the local private sector.

Collaborations could be formed that would have an impact on teaching and learning wherein university teachers would have the ability to join projects inside a company. In exchange of this, professionals from said companies would agree on giving guest lectures and classes at the university. This would allow students to have an insight into the actual private sector environment.

Another recommendation would be to provide a portal where guest lecturers and companies would have the ability to approach the university. This can also serve to have a better overview on the current companies the university has contact with to facilitate future partnerships. Lastly, it would be desirable to create an environment where students can not only test their theories in the form of assignments or projects but also have the ability to implement these theories into real-life scenarios and be given feedback on the implementation.

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THE MAGIC OF COLLABORATION AND TIME MANAGEMENT

When I decided to embark on this journey, I had just started the second semester as a third year Accounting and Finance student at the University of Aruba. This meant I was still attending classes and had not yet started on the idea of a thesis subject. I was also running my own business, a sole proprietorship, full time and depended on this for my livelihood. In other words, my schedule was already booked five to six days a week with classes, homework, assignments, projects and running a business. Add to that joining the UA-UCU Student Research Collaboration Project and I was officially overbooked. I could not say what possessed me to overload myself, however I was determined. When announcing my decision to join this program to my peers, I was met with bewildered reactions: I must be crazy for doing this. Yet, I believe that it's when they start calling you crazy that you know you are on to something great.

The project looked extremely appealing to me. The very idea of a multidisciplinary group of students, from all walks of life and a variety of academic backgrounds coming together to help each

other with their research proposals seemed right up my alley. As an entrepreneur, I believe the future of the economy lies in collaboration. I have personally experienced collaboration with other entrepreneurs and discovered its true potential: a shared economy of collaborating entrepreneurs helping each other achieve their goals, develop their business and ultimately contribute to a healthy and thriving business environment.

The program started with a series of field trips and research discussions. When I first joined, my idea for a research proposal seemed like just that; an idea. However, as I hesitantly pitched my research proposal to the group of students and project coordinators, their support and input was immediately felt. The greatest benefit of doing this in teams was the amount of helpful hints received from different perspectives that push the gears to start turning and the ideas to start flowing. I could not have conducted my research quite like I had without the support I received from fellow students and the project coordinators.

As a young entrepreneur, I noticed a lack of understanding of Aruba's tax code and regulations among the small businesses I worked with. I had also heard, through the grapevine as it were, about other companies that went under when they could not meet their tax obligations. Taxes, as certain as death as Benjamin Franklin so eloquently phrased it once, are an integral part of participating in a civilized society and it seemed to me that too many small businesses were overwhelmed by its complexity. It was for this reason that I chose the topic of tax compliance among small and medium enterprises in Aruba and causes of non-compliance.

Managing time to actually conduct this research was a greater obstacle than I initially imagined. My schedule left very little room to breathe and I was afraid I might end up turning into a stress ball before I could manage to even write the first paragraph. Somehow, my determination seemed to outweigh the amount of stress experienced and I succeeded in completing a report just hours before the deadline.

The experience itself was eye-opening. I learned so much about my own island through the learnings of international students who were here as visitors and I came to the realization that I did not know my own nation well enough. This of course only drives me to learn more and share this knowledge with as many people as possible. I will personally be recommending this program and the research reports to any and all who show a hint of interest in learning.

THE IMPORTANCE OF TAX COMPLIANCE AMONG SMES IN ARUBA FOR BUSINESS CONTINUITY

What does tax compliance mean for Aruba and how can this be improved?

by Nayla Yazagaray

1. INTRODUCTION

Oliver Wendell Holmes Jr., who served as a U.S. Supreme Court justice from 1902 to 1931, immortalized the phrase: *“Taxes are what we pay for a civilized society”*. That phrase is inscribed above the entrance to the IRS headquarters in Washington, D.C. (Biography.com, 2016)

Much like the regular civilian, enterprises are also responsible for paying taxes to the society in which they operate. Additionally, much like income taxes, corporation and revenue taxes can be complicated and difficult to translate in laymen’s terms. The *Algemene Landsverordening Belastingen* (General Tax Ordinance) and *Landsverordening Winstbelasting* (National Ordinance on Profit Tax) regulate tax compliance for business on Aruba. However, small and medium enterprises (SMEs) in Aruba often struggle with tax compliance. SME owners in Aruba are sometimes insufficiently aware of their rights and obligations to the tax office. Owners of these enterprises sometimes find themselves facing unexpected financial burdens which can in turn lead to the failure of their businesses with consequences for the economy at large.

Every society aspires to have a civilized nation with a healthy economy and an attractive environment for doing business. This is especially true for the small nation island of Aruba, which is the third most tourism-dependent country in the world. Currently, the Aruban economy is still recovering from the double-dip recession of the 2008 global financial crisis and the end of oil refining activity (IMF, 2015).

The tourism-dependent economy of Aruba benefits from attracting prolific investors that help further develop the tourism sector and contribute to the construction of a desirable environment for doing business.

Revenue realized from business taxation is a major source of income for the Aruban Government and an important resource for the development of the Aruban economy. A healthy business environment ultimately fuels a healthy economy. Tax regulations and incentives are greatly related to the health of such an economy and can either hinder or promote economic development. The problem arises when businesses do not comply with their taxation obligations, either through fault or lack of understanding. Tax evasion is a problem which affects

small and medium-sized enterprises in a particular way, especially if they are not properly documenting their financials.

This research was conducted to further understand the reason behind tax non-compliance of SMEs in Aruba. Furthermore, this research endeavors to formulate possible recommendations could be to minimize this problem. The following report will outline the research questions and objectives, the driving forces behind this research, the methodology used for this research and the data collected. The review includes a summary of the relevant tax laws and the regulations these laws impose. This report will also present an analysis of the data collected using graphs and tables highlighting the main findings. This report will conclude with data analysis and recommendations that can be formulated from the data.

1.1 Current situation

Although the Aruban economy has shown itself to be fairly resilient to the double dip recession described above, the recovery is hindered by an intricate tax system with a laundry list of exemptions and deductions. Additionally, the tax burden on SMEs in Aruba is relatively high, adding to the complexity of doing business on the island. Thus, the current tax system makes doing business in Aruba a complicated and burdensome task. Obtaining credit also presents a challenge for SMEs. The timeline for doing so can range from 6 weeks to 6 months. (Aruba Chamber of Commerce and Industry, 2015)

These barriers create a lack of confidence in doing business in Aruba and can lead to stagnation of a healthy business environment development.

SMEs form the backbone of the Aruban economy and thus play an important role in the business environment. (Ministry of Economic Affairs, Social Affairs and Culture, 2013). Data provided by the Central Bureau of Statistics gives emphasis to this statement. As can be seen from *Table 1* below, in the year 2015 SMEs enclosed 95% of active companies, 45% of all employees and 41% contribution towards the GDP.

It is therefore important to ensure that SMEs are encouraged to participate in the economy and that entrepreneurs are stimulated to develop and grow their business. To achieve this, the government plays a role in providing the necessary infrastructure and tax incentives to streamline the process of starting a business. The tax office is also significant as the simplification of the taxation process could spur economic development. The Chamber of Commerce also plays an important role by providing information to support business owners.

1.2 Research objective

The objective of this research is to understand tax non-compliance amongst SMEs in Aruba and how this non-

Average Employees per year	Companies	Cumulative Companies	Cumulative Companies in percentage	Employees	Cumulative Employees	Cumulative employees in percentage	Wages*	Cumulative wages	Cumulative wages in percentage	Size of company derived from number of employees
0 - 1	210	210	7%	108	108	0%	3,021,102	3,021,102	0%	SME
1 - 2	716	926	29%	798	906	2%	32,461,413	35,482,515	2%	SME
2 - 4	809	1,735	55%	2,050	2,955	7%	78,258,270	113,740,785	7%	SME
4 - 10	698	2,433	77%	4,116	7,072	17%	154,300,977	268,041,762	16%	SME
10 - 20	311	2,744	87%	4,280	11,351	27%	154,319,949	422,361,711	26%	SME
20 - 50	234	2,978	95%	7,411	18,763	45%	259,034,748	681,396,459	41%	SME
50 - 150	129	3,107	99%	10,544	29,306	70%	392,075,592	1,073,472,051	65%	Large
≥ 150	39	3,146	100%	12,717	42,023	100%	571,996,101	1,645,468,152	100%	Large
Grand Total	3,146			42,023			1,645,468,152			

Source: SVB Aruba year 2015 (Excluded are 1. Public administration and defence; social securities, 2. part of education related to public administration is excluded and 3. companies with no employees on payroll registered at the SVB)
 *(the wages are based on information received about the monthly wages per quarter from SVB Aruba. It is a year estimation consisting of 4 quarters)

Table 1. SMEs influence on the Aruban economy.

Source: CBS

compliance can best be addressed. This leads to the following research question:

“What is the main reason behind tax non-compliance amongst SMEs in Aruba and how can the rate of tax non-compliance be decreased?”

To find an answer to this research question, the following sub-questions were also formulated:

1. What is tax compliance and what are the current tax compliance regulations in Aruba?
2. Why is tax compliance important to the Aruban economy and what are the consequences of non-compliance?
3. What are the main reasons behind tax non-compliance according to the Aruban enterprises?
4. How can procedures of tax compliance be improved?

These research questions will be answered using several forms. The main research method is quantitative in form and will ask questions to Aruban enterprises directly. Qualitative research will be done in the form of desk research and literature studies to present background on the Aruban economy, as well as technical and legal information.

2. METHODOLOGY

Before collecting data on the distribution of information regarding SME tax obligations and possible recommendations thereof, it is necessary to understand the background and relevance of the topic of tax compliance and the regulations applicable to SMEs in Aruba.

2.1 Literature study

A literature study formed the basis of this research and allowed the researcher to gain in-depth understanding of the research questions. For the purposes of this report, the literature study involved delving into the theoretical aspect of taxation in Aruba by studying the laws and ordinances which address this topic.

2.2. Desk research

Another qualitative research method used for this report was desk research. The purpose of this desk research was to gain background information on the importance of tax compliance to the Aruban economy.

Aruba is not the only country that addresses the topic of tax non-compliance. There are other countries that have faced this challenge in the past and it was therefore relevant to also conduct a desk research on how other countries addressed this issue. This desk research provided key background information on the topic of tax non-compliance and possible solutions that could be explored.

2.3 Survey

In order to collect the necessary data from SME owners in Aruba, a quantitative survey was developed which consists of 37 questions divided into six subcategories:

- About the business
- Personal & Ownership
- Tax Burden
- Growth & Innovation
- Finance
- Business Support

This method of data collection was chosen as it was the best means of gathering a large amount of data in aggregated form.

This survey was targeted at SME owners in Aruba with questions aimed first at determining the background of their enterprises in terms of size, revenues, life span and industry. The survey further addressed the background of the SME owners themselves with questions about their education, profile, employment background and involvement in their businesses. The survey followed with questions regarding the burden imposed by the Aruban tax code on the local enterprises and reasons behind late payment or non-payment of taxes. The survey made further inquiries into business support received by Aruban enterprises and room for improvement in this regards. Finally, the survey addressed the SMEs' access to financing and obstacles SME owners felt were relevant to the growth and success of their business. Lastly, questions concerned whether SME owners had suggestions or recommendations that could add value to existing protocols and processes currently being used by the tax office and the Chamber of Commerce.

The survey was initially created in English as this is a widely-spoken language in the professional environment in Aruba in addition to being the language of this report. The survey was translated into the three other main languages in Aruba: Dutch, Papiamentu and Spanish. The reason for this was to determine if there existed correlations between the language of choice and the results of the survey. All four surveys were then added to an online survey creation service with the intention of emailing the survey as a link to all SME owners in Aruba.

Contacting the SME owners in Aruba required the collaboration of the Chamber of Commerce, which provided the database of all businesses registered in Aruba. This database was imported into an online email marketing platform as a list and the survey link was e-mailed to all

businesses in Aruba that had an email address registered. The email campaign was also created in the four different languages previously mentioned, linking to the survey in the preferred language.

In order to collect as many respondents as possible, a separate survey link was created specifically for sharing on social media. This link was shared on Facebook requesting SME owners to take the survey. Additionally, another link was created for in-person cold visits to several businesses in downtown Oranjestad. It is easy to ignore an email but trickier to dismiss a surveyor at their door, potentially rendering a higher rate of response.

3. DATA COLLECTED

The following section of this report will present the findings of the data collected using the methodology proposed in chapter 2. This chapter is subdivided into a section for the literature study, desk research and the survey conducted.

3.1 Literature study

The literature study explored the laws and regulations concerning enterprises doing business in Aruba. This required a comprehensive study of the basics of civil codes, criminal law codes and ordinances on tax codes in Aruba.

3.1.1 Legal Forms

All SMEs established in Aruba are required to register at the Aruba Chamber of Commerce in accordance with Article 1 of the *Handelsregisterverordening* (Trade Registry Ordinance). Non-compliance with this requirement or incomplete registry could cost the entrepreneur a maximum fine of AWG 2,000. (Art. 20 section 1 HRV). The entrepreneur could also expect a fine between AWG 500 to AWG 1,000 should he/she register his/her enterprise

incorrectly. This measure was put into place to prevent improper registration of an enterprise's legal form, given that the form affects the taxes which the enterprise must pay.

Aruba has various legal forms for doing business:

- Sole proprietorship
- Partnership (VOF/ CV)
- NV (corporation)
- VBA (Limited Liability Company)
- AVV (Aruba Exempt Corporation)
- Foundation
- Association

The sole proprietorship and general partnership are often the preferred choice for local entrepreneurs who initiate a small and/or low risk venture. For capital intensive or high risk ventures, the entrepreneur can opt for legal entities such as, the NV, VBA or AVV. (Establishing a business in Aruba, 2016)

3.1.2 Aruban Taxes

Sole proprietorships and general partnerships are subject to the progressive personal income tax. The personal income tax is under the provision of *Landsverordening Inkomstenbelasting (LvIB)*, or the Income Tax Ordinance, and is levied on taxable income minus deductions for obligations. As of an income of AWG 20,455, this personal income tax is due starting with a minimum of 7.40% up to a maximum of 58.95%. Sole proprietorships and general partnerships receive an additional deduction of AWG 2,400

on their profit, which means that the first AWG 2,400 of the enterprise profit is tax exempt. (Individual Income Tax, 2016)

Legal entities such as, the NV, VBA or AVV are subject to the corporate profit tax. The corporate profit tax is under the provision of the *Landsverordening Winstbelasting (LvWB)*, or the National Ordinance on Profit Tax, and is levied on corporate profit minus deductions for obligations. As of 2016, the corporate profit tax rate is 25%.

3.1.3 Tax Compliance

Aside from registering the enterprise at the Chamber of Commerce, business owners are required to set up and maintain a financial administration of all business transactions as per article 3:15a of the *Burgerlijke Wetboek van Aruba (BWA)*, or Civil Code of Aruba. Such a log exists for the purposes of compiling the annual fiscal report. All business administration data and files are required to be backed up for a duration of ten years. If an enterprise is unable to verify her administration or deliberately cooks the books, the entrepreneur can expect a prison sentence of between one to six years as per articles 353 and 354 of *Wetboek van Strafrecht*, or Criminal Law Code.

These laws are in place to ensure that enterprises engage in proper annual reporting. Annual reports are expected to include balance sheets, cash flow overviews, profit and loss statements and clarifications for these overviews. The object of this is that the enterprise correctly declares its assets, liabilities, income, expenses and all tax deductible expenses with the end result of declaring actual fiscal profits for the purpose of taxation.

Tax compliance entails the declaration of taxable profits or income and the subsequent payment of the taxed amount. Failure to declare income by income tax liable enterprises could result in fines starting from AWG 250 up to AWG

10,000 as per article 54 section 2 of the General Tax Ordinance. If the entrepreneur is proven to have evaded declaring the income tax, this fine can go up to 100% of the taxable amount. In the event of a transgression or offence, this fine can even go up to AWG 100,000 or twice the taxable amount and could potentially earn the entrepreneur a prison sentence of up to four years. (Accountancy Tax Legal & Advisory Services, 2013)

3.2 Desk research

The IMF report on Aruba published in 2015 suggested that over 70% of the revenue the government received flowed from direct taxes such as income and profit tax, with roughly 20% of revenue coming from indirect taxes such as the turnover tax (BBO). On average, the total revenue accounted for 24% of the island's GDP.

Although there has not been an official research conducted on this topic as of yet, the tax office suggested that less than two thirds of the businesses in Aruba comply with their taxes. This means that the economy's real (reported) GDP is negatively affected by tax non-compliance. The IMF report also indicated that revenue performance suffered greatly due to the reduction in business turnover tax (BBO) rate from 3% to 1.5% in 2010. It was estimated that each percentage point in the BBO rate could yield about AWG 60 million, about 1.3% of the GDP. As such, tax non-compliance results in a loss of government revenue which translates into less investment capital available to help sustain and develop the Aruban business economy.

In 2014, Aruba's public debt surpassed 80% of the GDP, a level beyond what is considered prudent for a small economy like Aruba. (IMF, 2015) This debt could be potentially decreased by cutting down costs and increasing tax compliance. Tax non-compliance can also have a negative effect on the compliant taxpayer, who ends up paying more due to non-compliance by others. To

bridge budget deficits, governments often raise taxes and implement budget cuts. In short, if all taxpayers complied, taxation could be decreased to impose less of a burden on all compliant taxpayers. (Grootens, 2016)

3.3 Survey

Out of the 16,328 businesses registered at the Chamber of Commerce up until March 2017, only around 4,000 had registered a business email address. This meant that less than one quarter of the business registered in Aruba would receive this survey by email. Additionally, this database was filtered out to remove the larger enterprises and retain only the SMEs in order to reach the target audience. This brought the list down to a total of 3,800 recipients.

The email campaign had a bounce rate of 20%, meaning that more than 750 of the emails sent were not received because the email addresses or domain names no longer existed or the recipient email server completely blocked delivery. Out of the remaining recipients, 25% opened their email and 3.5% clicked on the survey links contained in the emails. To collect more responses, the emailing campaign was resent a week later to the 2,400 recipients that did not previously open their emails. From the second campaign, 12% opened their emails and 1.5% clicked on the links. In the end, just over 140 business owners clicked on the survey links, however not all of them completed the survey.

A separate survey link was created with the purpose of sharing this on social media. The social media link was only created for the English survey and shared on Facebook. As this one was trickier to track one cannot say how many clicked on the link, only how many surveys were completed through the social media link.

Finally a collector link was created for each survey and delegated to a surveyor. The surveyor then conducted in-person cold visits at several businesses in the vicinity of

downtown Oranjestad. While it was easier to track, this method did not yield as much response as desired as the surveyor had limited time to perform this task and some businesses turned the surveyor away. The social media share and cold-visits did not generate nearly as much response as the email campaign, over 90% of the responses collected originating from the email campaign.

In the end, a total of 100 survey responses were collected. More than 50% of the respondents chose to take the survey in English while around 20% chose either Papiamentu or Dutch. Less than 5% chose to answer the survey in Spanish. This presents a clear preference for the English language as a language of doing business among the entrepreneurs in Aruba. The findings of all these surveys were translated back to English, consolidated into one database, and processed into aggregated data for this report.

4 DATA ANALYSIS

The following section of this report presents the survey questions and answers divided per section. The answers displayed were responses from a group of 100 business owners in Aruba. The answers collected are presented in aggregate form with simple graphs.

4.1 About your business

The first section of the survey addressed the nature of the business. The questions were aimed at determining the business size, industry, age and profitability.

Out of the 100 enterprises surveyed, 33% have no employees, meaning that one third of the entrepreneurs surveyed run their business on their own. Another 35% have between 1 and 4 employees, 11% have between 5 and 9 employees and 10% have between 10 and 49 employees. This boils down to a total of 88% of enterprises that are no bigger than 50 employees.

Out of the businesses surveyed, 35.6% of respondents described their business as a sole proprietorship and 45.5% run their business in the form of an NV.

The top five industries included were:

- Professional Services at 17.8%
- Food & Beverage at 10.9%
- Retail & Distribution at 8.9%
- Construction & Machinery at 6.9%
- Real Estate at 5.0%.

Most of the businesses surveyed have been in operation either between 1 and 4 years or 10 and 20 years, each at 26.7%

Only 12.9% of businesses reported revenues of over AWG 2,000,000 per year, while 18.8% reported revenues of less than AWG 250,000 per year. However, 48.5% reported generating a profit or surplus in the last financial year. This can be an indication as to the size of these businesses.

4.2 Personnel & Growth

This section of the survey addressed the owner of the business. The questions aimed at determining the SME owner's education, age and work experience.

Most of the business owners surveyed have completed a bachelor's degree. The results of this research show that 41.1 % have completed at most a bachelor's degree. Another 17.8% have completed a master's degree.

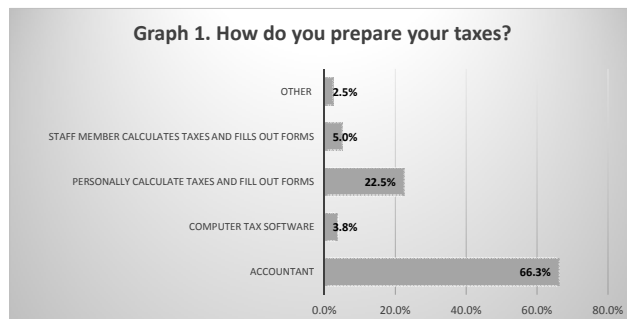
An overwhelming 58.9% of SME owners were previously employed at another business that they did not run. Only 17.8% were running another business prior to setting up their

current business. Most SME owners are between the ages 35 to 64. 31.1% are between the ages of 45 and 54. An interesting point revealed from this question was that nearly 15% of entrepreneurs under the age of 34 are participating in the economy.

Out of 100 business owners surveyed, 72.2% work full-time running their business while 27.8% work part-time. Thus, almost three quarters of the businesses surveyed require their owners' full attention. At least 64% of the businesses surveyed do not anticipate a closure or full transfer of the ownership of their business in the next 5 years. This suggests that most business owners intend to keep their business.

4.3 Tax Burden

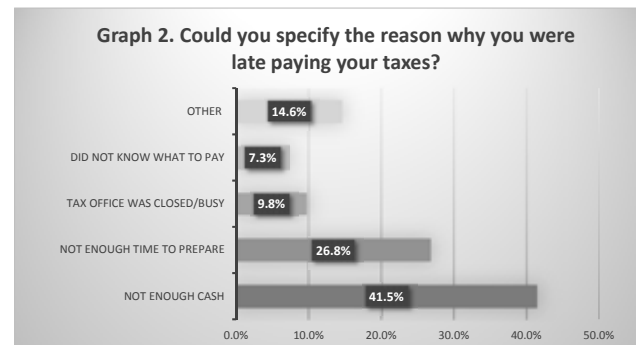
The third section of the survey addressed the tax burden experienced by business owners. The entrepreneurs were asked questions about how much effort they paid monthly in taxation and what were burdens presented by the Aruban tax code. When asked about the method of tax preparation, 66% of respondents reported having hired an accountant. This can be seen in *Graph 1*. This suggests that while business owners understand the importance of tax compliance well enough to hire a professional to do it for them, they do not have the confidence in their own knowledge on the subject to do this themselves.



Graph 1. *How do you prepare your taxes?*

34% of the businesses surveyed reported the financial cost to their business as the largest burden placed on them by the Aruban tax code. Other burdens included the backlog by the tax office and the time intensity of digging up information dated years back, the time spent on personally handing in papers to receive a stamp, and the lack of process automation at the tax office.

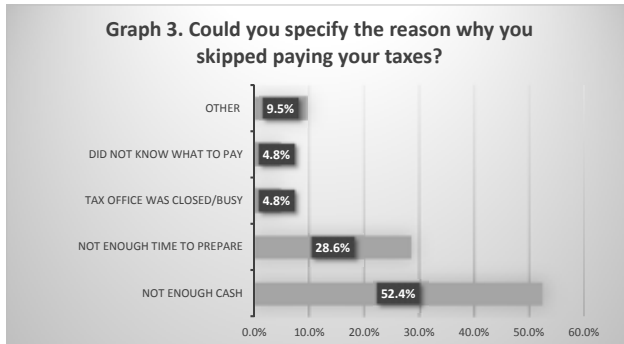
The majority of the respondents, 43%, reported that the impact of taxes on day-to-day operations were significant, while 24% said this impact was moderate. While 46.8% of businesses surveyed reported to never have been late in paying their taxes, 21.5% reported being late 1-2 times, 6.3% were late between 3-5 times and 16.5% were late more than 5 times. The most common reason reported for late tax payment was shortness on cash at 41%, as is shown in *Graph 2*. The next most common response was not enough time to prepare, at 27%.



Graph 2. *Could you specify the reason why you were late paying your taxes?*

When asked on how often they skipped paying their taxes, 72.2% reported to never skipped, 7.6% reported skipping 1-2 times, 6.3% skipped between 3-5 times and 6.3% skipped more than 5 times.

The most common reason reported for skipping tax payment was not having enough cash, at a staggering 52.4%. The next most common response was not enough time to prepare, at 28.6%. This can be seen in *Graph 3*.



Graph 3. *Could you specify the reason why skipped paying your taxes?*

4.4 Business Support

This section of the survey addressed the support SMEs felt their business received in terms of continuity. Businesses expect this support to come from the tax office and the chamber of commerce and this can influence the way they view their relationship with these organizations.

A total of 25.1% of the businesses surveyed believe their relationship with the tax office could be improved with online service. Improving accessibility was the next most popular suggestion at 17.6% and simplifying taxation was third most important at 16.6%. Other suggestions included flat rates for some sectors, having an account manager at the tax office who can help the business owner when needed and having the possibility of submitting declarations online. One respondent suggested having the website in languages other than Papiamentu, as many business owners in Aruba speak English and Dutch.

Respondents also suggested modifying open business hours as the tax office is closed after business hours which makes it difficult for business owners to make it to the tax office.

Seeking strategic advice is a possible option for SME owners who are concerned about their business continuity. When asked to describe their reasons for seeking strategic advice, nearly half of the businesses responded with wanting to better understand how to develop and grow their businesses or exploit a business opportunity. This shows that a large number of businesses are interested in not just continuity, but growth and development as well.

A total of 25.3% of respondents reported that they would approach the Chamber of Commerce if they wished to know what the Government was doing to support small businesses. Another 22.7% would rather approach their accountant and only 12% would visit Government websites to seek this information. The remaining respondents would approach their bank manager, advisor, business colleagues, mentor, and newspapers or search online. A staggering 77% of businesses surveyed do not feel that small businesses in Aruba receive sufficient support from the tax office and the Chamber of Commerce in their business continuity. This negative perception could breed a lack of confidence among SMEs in doing business in Aruba and discourage the rise of new and innovative enterprises.

When asked on how the tax office can help improve the support that small businesses receive, 33.3% of respondents felt that the tax office's website needed an update and clarification and 17.3% felt that workshops and courses were needed. Some of the other answers included speeding up the process at the tax office, improving customer service, and improving accessibility.

When asked how the Chamber of Commerce could help improve the support small businesses receive, 26.7% of

respondents felt that the Chamber of Commerce should organize more information campaigns and 26.7% felt that workshops and courses were needed.

4.5 Finance

This section of the survey addressed the financing options and accounts receivables of SMEs.

When asked if they have tried to obtain external finance in the past 12 months, only 31.5% of these businesses answered that they have with 65.8% not having sought any finance. Among the ones that did seek finance, 25.7% were attempting to acquire capital equipment in the form of vehicles and another 25.7% were looking to purchase land or buildings.

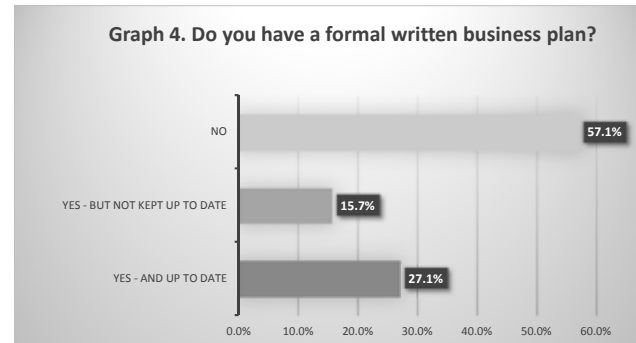
The existence of overdue customer balances appears to have become a common problem for SMEs doing business in Aruba. At least 61% of the businesses surveyed reported experiencing problems with late paying customers. This could be an indication the consumers' buying power is suffering or that other small businesses are experiencing cash flow challenges that need to be overcome in order to pay their dues.

4.6 Growth & Innovation

This final section of the survey was aimed at determining if the business owners surveyed have plans to grow their business and what do they feel are obstacles towards the success of their business.

70% of the businesses surveyed expressed the desire to grow their business in the next two to three years. If unhindered, this could lead to the further development of a healthy business environment. Some of these businesses, 63% of them in fact, have been trying to innovate their products and services in the last 12 months.

The problem however, as is illustrated in *Graph 4*, is that 57% of businesses surveyed do not have a formal business plan. A business plan is a valuable tool for a business owner both in the startup phase as well as the development phase. The lack of a business plan means that these businesses are unable to monitor their progress at present or plan their future business endeavors. (Robbins, 2004)



Graph 4. *Do you have a formal written business plan?*

When businesses were asked to specify the biggest obstacles to the success of their business, 16.5% reported this being the condition of economy, 11.2% expressed that taxation was an obstacle and 10.4% found that the market was unfavorable for doing business. Other answers included the lack of local raw materials available, high import costs, and lack of quality personnel on the job market.

Fluctuating income and expenditures was the highest cause of cash flow difficulty reported, with 23% of respondent affected. A combination of late payment from individual customers and other businesses affected 27.5% of respondents. This reflects the indication the consumers' buying power is suffering and that other small businesses are experiencing cash flow challenges as well.

When specifically asked on the hinder caused by taxation to the businesses, the biggest obstacles reported were the AOV/AWW/AZV premiums and the profit tax, both affecting 27.6% of respondents. The next largest obstacle reported was the income tax. Other businesses expressed that the premiums are disproportionately high and that the tax regulations generally make it difficult to run a successful business.

5. CONCLUSION

At the beginning of this research, the following research question was asked:

“What is the main reason behind tax non-compliance amongst SMEs in Aruba and how can the rate of tax non-compliance be decreased?”

Answering the sub-questions to backup this research question research required delving into a literature study of the civil and tax codes in Aruba, a desk research on the importance of tax compliance and a survey aimed at SME owners to determine possible causes of tax non-compliance.

1. What is tax compliance and what are the current tax compliance regulations in Aruba?

Tax compliance entails the declaration of taxable profits or income and the subsequent payment of the taxed amount. Current tax regulations include taxes levied on income and profit minus deductions for obligations to running a business. The profit tax has been fixed at 25% as of 2016, while the income tax is a progressive rate starting from 7.40% and ranging to 58.95%. This earns Aruba the position of one of the highest standards of living in the Caribbean. (IMF, 2015) Several businesses have also expressed that the premiums are disproportionately high and that the tax regulations generally make it difficult to run a successful business.

2. Why is tax compliance important to the Aruban economy and what are the consequences of non-compliance?

Tax non-compliance has shown to negatively impact national GDP and can increase the already heavy burden on taxpayers that are compliant. Tax non-compliance can result in heavy fines and even a prison sentence for proprietors that are caught. The fines can range anywhere from AWG 250 to a maximum of AWG 100,000. This could have a devastating impact on the survival of businesses, particularly SMEs that already have a cash flow problem. Therefore tax compliance is crucial for the continuity of SMEs and ultimately the Aruban economy, as this relies heavily on SMEs' survival.

3. What are the main reasons behind tax non-compliance according to the Aruban enterprises?

From the survey conducted, it was evident that cash flow remains the biggest obstacle for SMEs conducting business in Aruba. The most common reason stated for being late or skipping paying taxes was lack of cash flow, at 41% and 52.4% respectively. This indicates that while businesses are making a profit, as demonstrated by the 48.5% reporting a profit in the last financial year, they are facing challenges with their cash flow. This could be attributed to the alarming 57% of these businesses not having a formal business plan. Results also indicated that SMEs feel greatly burdened by the Aruban tax code. This burden could be lessened if more enterprises were tax compliant, as taxation could be decreased if more taxpayers complied thus further emphasizing the need for tax compliance.

4. How can procedures of tax compliance be improved?

Improving tax compliance requires cooperation from the tax office. A total of 25.1% of the businesses surveyed felt

that this relationship could be improved with online service and the simplification of taxation. It is no secret that Aruba has a complex tax system that is not easily understood by SME owners without a background in tax law. Providing an online service would decrease the time needed to physically visit the tax office for tax declarations, payments, and inquiries. Simplifying the information needed for taxation could also greatly increase the rate of tax compliance.

Another solution would be to assign experienced account managers at the tax office to personally handle communication with SMEs and address their inquiries. This could significantly improve tax compliance among SMEs as their understanding of the tax code, significantly improving compliance. Given the large number of business owners that chose to take the survey in English (>50%) and in Dutch (roughly 20%), it is recommended for the tax office to update their website to meet the needs of these business owners. Given the results of the survey, 33.3% may have difficulties understanding the Papiamentu language.

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Student Research Exchange *Collected Papers 2017*

ISBN/EAN:



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